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Precision SHOOTING

a magazine for shooters by shooters

PRECISION SHOOTING

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Editorial Offices
133 State Street Augusta, Maine 04330
Tel. 207-622-1711

Business Offices
Michelle Sutton
P.O. Box 30 Lafayette, N.Y. 13084

Editor (pro tem) — Dr. A. H. Garcelon
President — Dr. A. H. Garcelon
Vice President — Dermot C. Reilly
Treasurer — Michelle Sutton
Corp. Clerk — Allie Euber

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PS STAFF

EDITOR PRO TEM & PRESIDENT:
Dr. Alonzo H. Garcelon
133 State Street
Augusta, Maine 04330
207-622-1711

COLUMNISTS:

Technical Editor
M. H. Walker
R.D. 1, Warren Road
Mohawk, N.Y. 13407
Winter 813-687-4988
Summer 315-866-6971

Benchrest - Feature
Lt. Col. Rick Hornbeck
R.D. 2, Box 220
Pine Bush, N.Y. 12566
914-744-3978

Benchrest Down Under
The Australian Scene
Ann Brummell
24 Septimus Ave.
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"Our Wandering Philosopher"
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"In House Gunsmith"
Seely Masker
261 Washington Ave.
Pleasantville, N.Y. 10570
914-769-2627

Subscription Notices
Michelle Sutton
P.O. Box 30
Lafayette, N.Y. 13084
315-677-9466

Deputy Editor for Southwest
Robert Pease
P.O. Box 787
New Braunfels, Texas 78130
512-625-1342

Our Expert in Northwest
L.E. "Sam" Wilson
Box 342
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COVER

Glen Newick
1981 Three Gun Winner

IBS — NBRSA MEMBERSHIP CARDS

In a joint statement made public at the supershoot, Bob White, president of IBS, and Tom Metzger, president of NBRSA, announced that effective July 1st, the membership card of either organization would be accepted at all registered matches held by clubs affiliated with both groups.

The statement of the two officers is seen as benefitting the shooters of IBS and NBRSA, and will be in effect for the 1982 National Championships of both groups. The mutual card recognition is the latest result of ongoing discussions between the IBS and NBRSA, seeking to improve relations and to standardize wherever possible.

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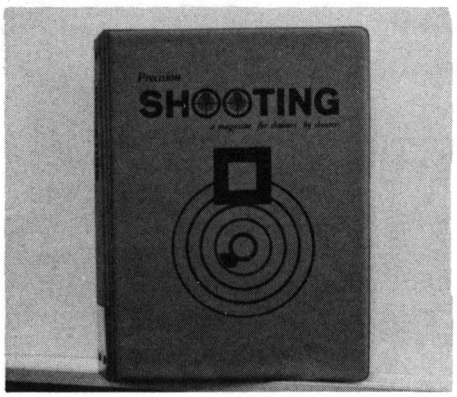

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As of January 1st, 1982

The following records are recorded in both inches and millimeters. The top figure being the measurement in inches, the figure directly below it is the same measurement converted to millimeters.

SINGLE GROUPS	HEAVY BENCH REST RIFLES	HEAVY VARMINT	LIGHT VARMINT	SPORTER
5-100 METERS		.069 1.75 M. Hensley 6-21-80	.114 2.89 J. Deming 5-30-81	
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Robert A. White
R.D. 1 North Rd.
Chester, N.J. 07930
Phone: 201-879-6122

1ST VICE PRESIDENT & MATCH SCHEDULE CHAIRMAN
Joseph E. Higgins
84 West Center St.
Nesquehoning, PA 18240
Phone: 717-669-9215

2ND VICE PRESIDENT
Woody Cahall
105 Odessa Ave.
Wilmington, Delaware 19809
Phone: 302-328-4131

TREASURER
Robert DeMonstoy
1 Pioneer Rd.
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SECRETARY
J. F. Borden
R.D. 1
Tunkhannock, Pa. 18657
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IBS Memo

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All target orders, as usual, are figured with a 10% discount for affiliated clubs, plus handling and shipping charges.

Mail order to: Evelyn Richards, 411 N. Wilbur Ave., Sayre, Pa. 18840.

The annual membership fee is $15.00 — Life membership in IBS has been set at $125. Apply to the recording secretary for enrollment. IBS Affiliated Club Membership $15.00

New rule books now available, with minor changes — plus IBS By-Laws at $1.00 per copy.

IBS Charter Membership Patches and regular patches are available at $2.00 each.

When ordering **Charter Membership patches,** please indicate your 1970 Card Number.

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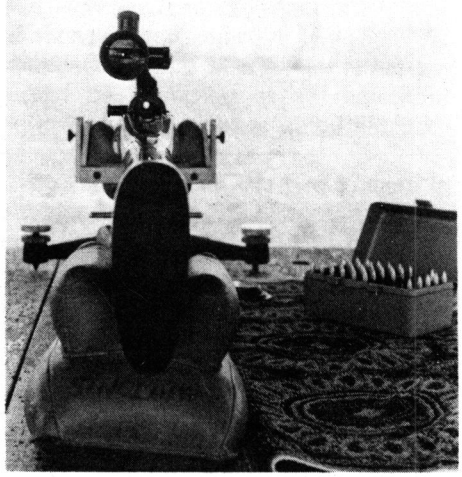
Another Idea on Scope Mounting from Fred Sinclair



A new method of mounting telescopes on benchrest rifles developed by Indiana gunsmith Fred Sinclair has recently drawn interest from a wide range of shooters.

Sinclair's experimentation with telescope mounting methods began at the urging of the late Dr. Thomas Minder of Fort Wayne. Dr. Minder had experimented himself with a variety of mounting methods in order to be more comfortable when shooting from the bench. One of his initial goals had been to gain additional clearance to keep his hearing protectors from hitting the stock of the rifle.

Too, Dr. Minder, an optometrist, realized the importance of shooters who wear corrective lenses being able to assume a position at the bench such that they could fire the rifle while looking through the physical (and optical) center of the lens of their glasses. The shooter who wears glasses and is forced to tilt his head down while firing the rifle will find himself looking through a portion of his lens which is less than perfectly corrected.

Prior to his untimely death in February of this year, Dr. Minder had experimented with a number of the see-through telescope mounting rings. These, he found, allowed him to assume a more head-erect position at the bench with the dual benefit of better vision and added clearance for the hearing protectors.

Continued on Page 9

From Editor's Desk

Seely Masker and a couple of others have written or called about the failure of some scope manufacurers to supply lens covers. This isn't a new problem, but it is ever present.

Well, there is an outfit "Uncle Mike's" or "Michael's of Oregon Co." that makes scope covers that are easy to use and are available for almost any scope you might own. They are a non-warping, neoprene rubber disc type, attached to each other by a heavy rubber band. They are made for hunting and target scopes both.

Mike makes them and sells them at various outlets. Three dealers in my town stock them. They are nicely packaged and the scopes they fit are listed on the package. The only scope I know of at present that they don't list is the new Lyman 35x, and Lyman sells this with metal scope covers anyway, so this doesn't make for a problem.

You can solve the lack of scope cover problems — look for "Uncle Mike's" display and find the answer.

— AHG

TCL TRANSCONTINENTAL HUNTER RIFLE LEAGUE TCL

League Director
Bob Pease

League Coordinator
Tony Hidalgo

JULY MATCH SCHEDULE IN PROGRESS NOW

Englishtwn NJ	-	Snowshoe AK	Entiat WA	-	Colorado BRS
Pocono Penna.	-	La. Cajuns	La Crosse WI	-	Chippewa OH
S.W. LA.	-	Cor - E - Tex	Cen Tex North	-	Menominee Falls
Dunhams Bay NY	-	Waco Area Tex	Menard Texas	-	Pabst-Milwaukee
West Montana	-	San Juan NM	Tiffin Ohio	-	San Angelo TX
Holmesburg PA	-	Yellowstone MT	T. C. Illinois	-	Las Vegas NV

LEAGUE STANDINGS

NORTHERN DIVISION		EASTERN DIVISION		CENTRAL DIVISION		SOUTHWESTERN DIVISION	
Entiat,WA	1-0	Pocono,PA	1-0	La Cajuns	1-0	Menard TX	1-0
W.Montana	1-0	Englshtn NJ	1-0	Menominee WI	1-0	San Angelo TX	1-0
LaCrosse,WI	1-0	Holmesbg PA	1-0	S.W. La.	0-1	Waco Area TX	0-1
T.C.Illinois	1-0	Tiffin,OH	1-0	Cor-E-Tex	0-1	San Juan NM	0-1
Snowshoe AK	0-1	Dunhams Bay	0-1	Colorado	0-1	Las Vegas NV	0-1
Yellowstone	0-1	Chippewa OH	0-1	Pabst,Milw	0-1	Cen Tex No.	0-1

Big news is the Tiffin Ohio win over Pabst Milwaukee which shows the improvement we have been expecting from the Ohio based group. The Pocono, PA shooters did a number on the SW Louisianans beating them by just two pints and 4 X's. That was some fine scoring and both look close enough to give those Cajuns a hard time if they get half a chance.

Alaska had to wade into a tough one for their first match and came out second best to the Cajuns. Marcy Lyons perfect 250-9X score hardly deserves comment since a week before he cracked off the 100 yard NBRSA Hunter Class World Record at Lake Charles LA. Even that had to take a back seat to his accomplishments two weeks prior to that when he came over to New Braunfels and set a new 200 yard AND a new Grand Aggregate NBRSA World Record. How about them Cajun apples?????? The humorous part is that he had tried for three years to get the NB Tex. club to register their club matches and the first one they do ZING a Cajun shows the Texans how to do it. CONGRATULATIONS.....MARCY ! ! ! !

This year we have had little liason with the other conference of TCL shooters and have decided to drop the All Star team since there is nothing to compare score to in the same time frame. We'd be remiss however if we didn't site Roger Gowers 250-15X score for Pocono as the outstanding shooting that it was. New in the high scoring ranks is John Bader of Menominee Falls WI with a near perfect 249-9 score. More and more of our shooters are hitting the 248 level with good regularity. and in putting all the data together I can see that Hunter Class is NOT through with improvement yet.

There seems a tremendous interest this year in the shortened 30's and 6's. With all the good bullets and particularly the good lighter 30 cal. bullets experimentation has showed more and more amoung TCL and Hunter Class shooters. Let's keep at it.

Bob Pease

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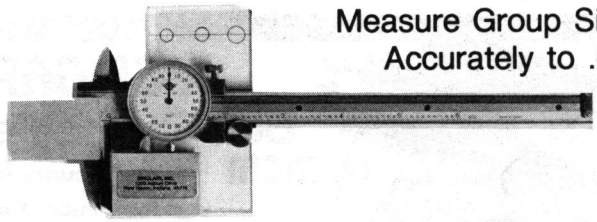

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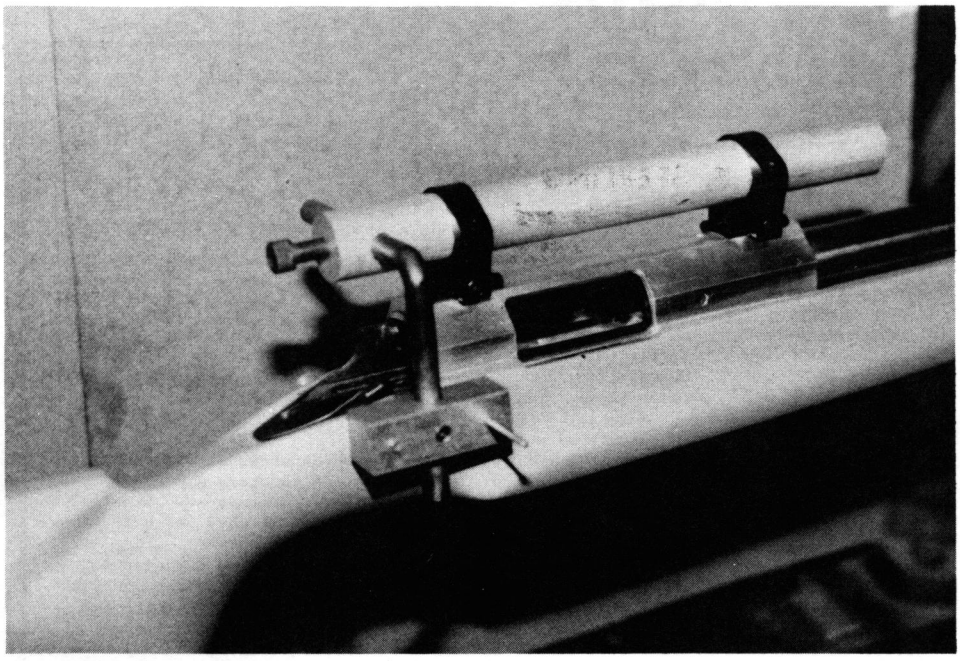
Sinclair Inc.
PRODUCTS FOR THE PRECISION SHOOTER

Trigger Pin Jig



I enjoy reading how-to articles in *Precision Shooting*. The magazine has really improved. I took particular interest in the article in May about the trigger pin jig. Enclosed is a picture of my jig; it might prove useful to those of us who don't have access to a milling machine. As you can see from the picture, this jig replaces the scope. It can be made in a couple of hours from scrap material. The only critical dimensions are the trigger pin guide holes themselves.

The main tube is a piece of one inch aluminum, make it about a foot long if you plan on doing any big guns with long scopes. If it has a Unertal, you will need a set of 3200 rings. For all other guns ten inches is fine. Drill a 3/8″ hole thru the tube about 3/4″ from one end. Drill and tap a 5/16″ see hole in the end of the shaft to act as a lock. The tube is done.

For the guide bar, I used a piece of 3/8″ cold rolled 7″ long, bend the bar in the center to 90°. This bend is important, make it as accurate as possible, use a square. The bar is done. See, I told you this was simple.

For the guide block, I used a piece of 3/4″ keystock. Make the block 2 1/4″ long. Drill a 3/8″ hole in the center of one side of the block. Flop the block 90° and drill a hole for a 1/4-20 set screw.

Now lay out the trigger pin holes. If you drilled the 1/4-20 set screw hole on center you already have a line scribed. Drill a 1/8″ hole thru the block about 1/4″ from one end. Place the trigger over the hole and stick a piece of 1/8″ drill rod through the trigger to hold it in place. I used the trigger as a guide to drill the second hole; just get the hole started; remove the trigger and finish drilling the hole.

As you can see, various materials can be substituted with equal results. You will also need two pieces of 1/8″ drill rod about 4″ long to line up the jig. To use, simply mount the jig in the scope rings and clamp lightly. With both lock screws loose, fiddle with the thing until you can slide the two 1/8″ drill rods through the guide block and into the trigger pin holes in the action.

Now, tighten the scope mount screws and the two jig lock screws. Keep checking the two drill rods so they don't bind up while you're doing this. Don't forget to leave enough room between the guide block and the action for the stock. After you drill the two holes, remove the jig and drill through to the other side or you can reverse the jig and use it to drill the other side.

This jig is not limited to trigger pin-holes. By fabricating other guide rods and blocks, you can use it to locate holes for action screws, too. If you don't like it after you make it, you can always use it to lap your scope rings.

Larry R. Sperling
McKeesport, Pa.

P.S. I'm sending you a picture of another gizzmo I made that's a real time saver. With this gadget you can set up your trigger before you put it in your glue-job and it will be right the first time. If you think it would make good reading I'll write another article on constructing one.

Larry — by all means please write up the trigger gizzmo for us — We'd all like to know.

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A METAL TREATMENT FOR GUN BARRELS

By Ed Pennebaker

As an active benchrest shooter, two things seem important: a) increasing accuracy, and b) getting a longer life out of a good barrel.

About three years ago, I ran across a metal treatment process that was used to prolong the life of cutting tools. It is called Pyro-Dux, and was developed at Oak Ridge, Tennessee. The process did not change the dimensions of the tool. It did result in lower operating temperatures, increased tool life of two or three times, and regrinds had the same benefits.

The process was soon used by several major textile manufacturers with ring spinning travelers. These are small metal clips that run on a steel ring at speeds up to 7,000 or 8,000 rpm. Life of this item was increased from four or five days to 10 and up to 15 days.

About two years ago, I had a sporterized Mauzer 98 (30-06) barreled action treated. It came back with the bluing gone. I found that it shoots about 4% faster. The test was run with hand loads that were put together at the same time. I then polished the barreled action and had it dipped. The result was an excellent deep blue job.

My entry into benchrest shooting was via a trade. I picked up a 6PPC sporter built on a 40X action with a 19.5″ Scherer barrel. It was stocked by Dave Tooley, chambered by C. Joines, and smithed by Tom McMillan.

At the time I got the gun, it had been shot a few hundred times. I then shot in several of the 1981 S.E. Region matches, usually placing in the middle of the pack.

At the second Knoxville shoot in 1981, I had the barrel treated between the days of shooting. The gun began finishing in the top third or fourth of the field.

As the 1982 season got started, I began finishing with trophies. The smallest group came down to .125. Before it was treated, the smallest group had been .198. And I picked up two top-ten patches in the 1982 S.E. Regional match for LV and Sporter. This was done nearly 5,000 rounds after the treatment.

The 10.5# gun has been fired in all classes, including Unlimited. It appeared to be a definite advantage, but more data was needed.

My plan was now to treat another barrel after chronographing speeds. Also, I wanted another caliber than the 6PPC.

Ed Watson had a .308 Unlimited gun for sale as a result of having a new gun built. The gun for sale was built by Shilen several years ago. It was in a laminated stock, built on a Remington action, and had a 27-½″ barrel.

I chronographed loads using H4895 powder, 154 gn Watson bullets, Remington 9-½ primers, and Federal brass. The chronograph was Custom Mfg. using paper screens set 3-½ feet from the muzzle. The powder was thrown with a Belding and Mull measure the same micro tube for all strings. The tube was set and never moved. We used 46.2 gn of powder.

The untreated barrel was test fired on 3-21-82 in 65° weather. The results are below:

521-2967 ft/sec
524-2941 ft/sec
527-2915 ft/sec
523-2950 ft/sec
525-2933 ft/sec
Average velocity = 2941.2 ft/sec
Variation in velocity = 52 ft/sec
% Variation = 1.77%

Continued on Page 27

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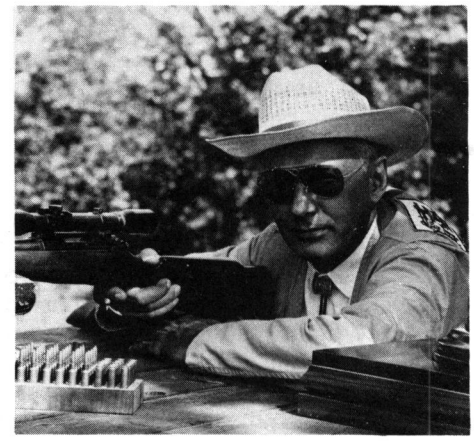
Technical Column



Mr. M.H. Walker
R.D. 1, Warren Road
Mohawk, New York 13407

Dear Mr. Walker,

I wish to thank you very much for your kind answer and I hope you have enjoyed the golf courses in Florida.

I have written to the American Consulate and I think they will provide me with the addresses of the firms you suggested to contact.

I would be grateful if you could be of help (of further help to be exact). My partner in Italy wants to make bullet jackets starting from flat stock, although I have already told him that it is a rather ambitious project I am also sure he will not stick to my recommendation.

Could you please suggest an engineering book or journel dealing with this subject?

Do you think it will be indispensable to make the drawing dies of some grade of tungsten carbide or can they be made of the best grade of tool steel? In your answer please, do not feel bound to suggest elementary books for my level of knowledge, as in case I can be assisted by a friend of mine who is qualifying in electronic engineering.

In your previous letter you said *The Bench-Rest Primer* will be my last effort in writing **books.** Would you please let me know who will publish it? Have you written any other book on gun related topics?

Will you still be writing the technical column for PS?

I do look forward to hearing from you again and I wish to thank you once more. Please excuse the many mistakes but I am on my way of learning how to type. Overall it should be better than my handwriting.

I have no knowledge of books related to drawing of any kind. I did set up and supervise the making of Remington's Match bullet line. These .22 and 6 MM bullets captured the market while they were being produced. Any good Mechanical Engineer should have gotten enough schooling to get the job started. Developing the techniques of good production and quality control will need to happen as the job progresses.

The so called Benchrest Primer has been published as *Benchrest for Beginners* by I.B.S. It should be available from the Recording Sec'y, Evelyn Richards, 411 N. Wilbur Avenue, Sayre, Pennsylvania, 18840. I believe the price is $2.00 in the USA. It is a paper back 6″x9″ pamphlet of some 30 pages.

I have contributed to the early Benchrest books *The Ultimate in Rifle Precision* and to Warren Page's *The Accurate Rifle.* I have not published a book of my own.

Good blank and cup as well as draw dies are made from tungsten carbide. Steel dies will not last long enough for accuracy work.

I have the librarian looking for a book on *Deep Drawing of Metals.* If she finds anything, I will let you know.

MHW

****

Dear Mr. Walker,

I'm forwarding this letter of inquiry regarding the technique you use in properly fitting and chambering rifle barrels using the "cone breech" design with the conical shaped bolt nose (a 25° angle to the bolt body configuration).

I'm also questioning how minimum headspace is achieved while maintaining a minimum breech-bolt nose clearance.

I haven't had an opportunity to read your article, "Chambering." Perhaps you could refer me to the publication source and Number so that I might purchase same.

I've enjoyed your "Technical Column" in *Precision Shooting* very much and find it very informative.

You have put me on the spot as I did not cover fitting of barrels with a cone breech. Actually I have not done this since my first bench rifle. It was put up on a M30 Rem. action. The M700 and 40X were my babies so preference naturally turns to this type of action. It is a much safer action in case of inadvertant mishandling such as the wrong powder, etc. However, if you put a hook type extractor in the action I take it all back, the extractor becomes a lethal projectile in case one has a blow. Not many bench shooters make loading mistakes which cause blow ups, but I know a couple who did.

Chambering and fitting the cone breech type is no different than the others only slightly more difficult. I prefer to work every thing from the bolt face.

To establish the bolt face figure, measure from the front end of the receiver down to the bolt face with a depth gauge. Make sure the bolt is bearing properly on the seat in the receiver. Allowing for about .002″ of draw, you can use this figure from the barrel shoulder to the head space gauge for the final chamber.

To establish the minimum clearance on the cone breech is more difficult. I would do the chambering first and cut the barrel cone later using the end of the head space gauge as reference.

The bolts for this type rifle generally have the cone angle starting ahead of the bolt face. The amount this protrusion sets ahead of the bolt face can be used as the base figure for measurement down from heading plug to barrel cone. From there on it would be cut and try. You can do this a lot more scientifically by measuring to a point on the angle using a cylinder, etc. but the end result would be the same, and take some what longer to set up and measure.

The original chambering article was in February 1981 *Precision Shooting.* A copy of this issue should be available from: James Hart, R.D 2, Lafayette, NY 13084. According to the notice in later issues the price is $2.00.

MHW

ANOTHER IDEA ON SCOPE MOUNTING Continued

Sinclair has carried Dr. Minder's experiment one step further, moving the telescope's optical center to the left as well as further above the bore of the rifle. The resulting mount, although ungainly in appearance, would seem to be a step in the right direction. The mounting system allows the shooter to sit very erectly behind the rifle with only minimal facial contact on the stock. Shooters who have tried the rifle have been uniformly favorable in their comments.

To date the mounting system, which utilizes Williams bases and rings, has only been used on an unsleeved Remington 40X action. No problems have been encountered either in sighting the rifle in or in making sight corrections when moving from 100 to 200 yards. Work is presently underway to adapt the mounting system to other actions as well as to sleeved actions.

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(full details next month)

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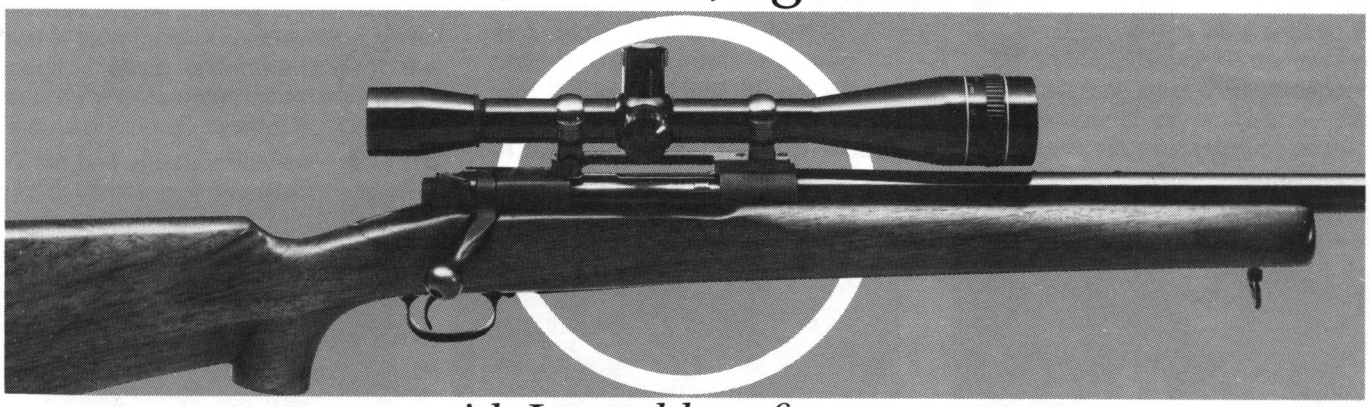
Heavy Varmint, 100 yards: 1 — Lester Bruno, .1734; 2 — Dick Maretzo, .1920; 3 — Wendell Dean, .2036. 200 yards: 1 — Dale Boop, .2611; 2 — Bob DeMonstoy, .2717; 3 — Fletcher Williams, .2735. Grand: 1 — Lester Bruno; 2 — Dale Boop; 3 — Don Geraci.

Now, a short, light 36X



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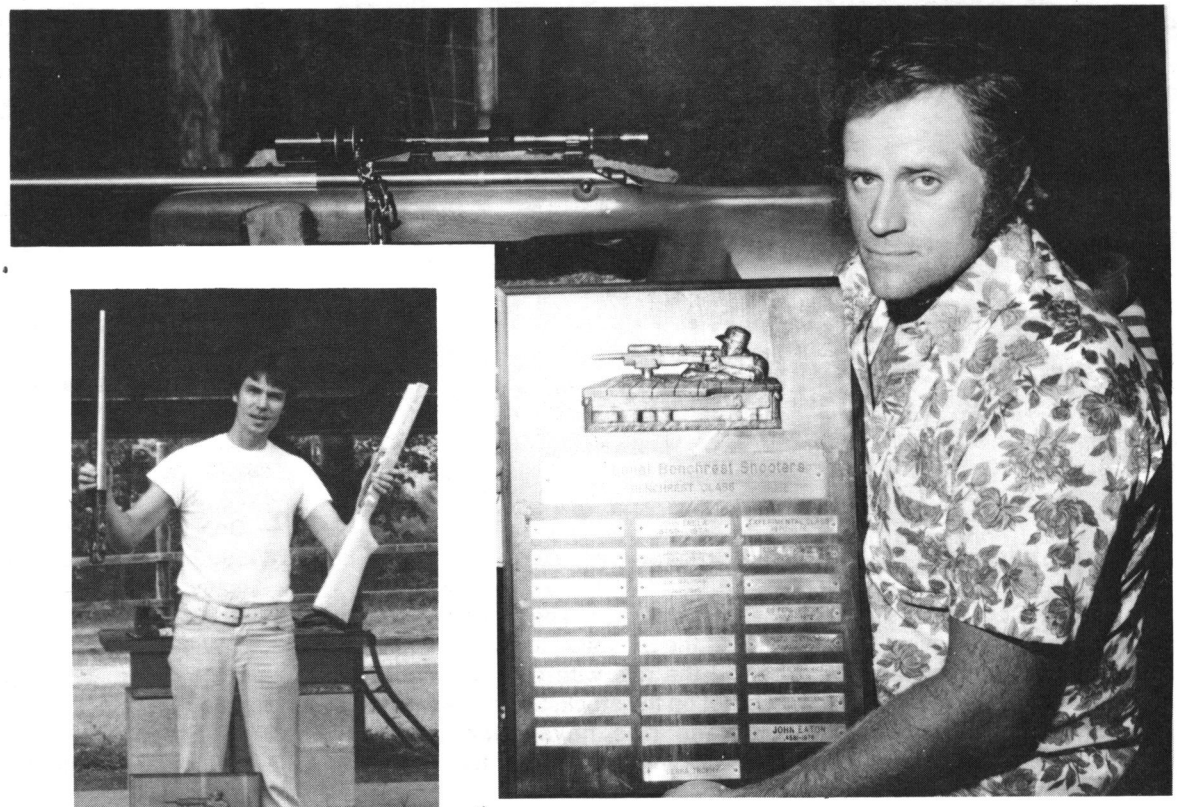
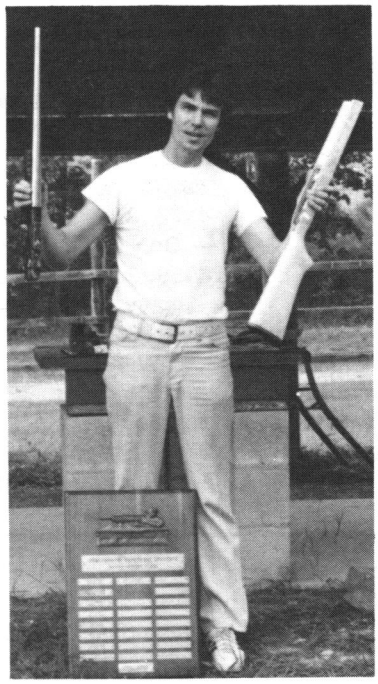


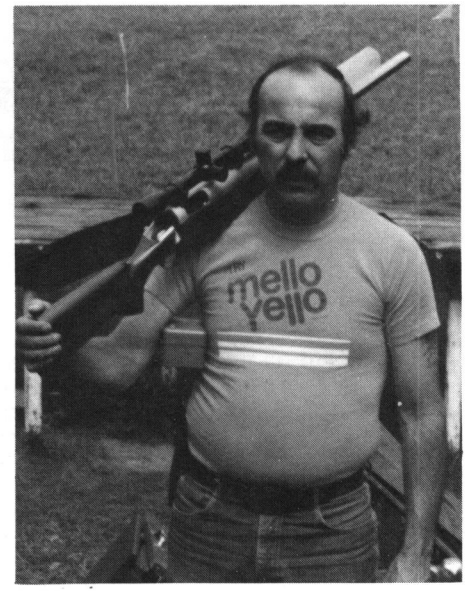


ABOVE — John Demmer, Jr., Heavy Bench.

LEFT — Roger Gower, 3 time Hunter champ.

ANOTHER GREAT GUY AND CHAMPION AS WELL — John Brown, LV winner, Grand Agg. - 2780.

A CHAMPION — Jack Deming, sporter winner, Grand Agg. - .2433.



Howie Levy, Heavy Varmint champ.

The writing of this article came about as the result of the questions I have been receiving in letters and phone calls. I hope it makes more clear just what happens. Perhaps publishing it will save time for both me and others in the gun fraternity.

CHAPTER II

OVERLOOKED ASPECTS OF THE CARTRIDGE CASE

More from Creighton Audette

The response of shooters and handloaders to the articles in the *"Rifleman"* and in *"Precision Shooting"* on the effects of errors in cartridge cases on accuracy have been most gratifying. I have received numerous letters and phone calls, in addition to those to the magazines. Many, serious handloaders have remarked that they have had cartridge cases, sometimes a substantial number of them, from which they could not obtain good accuracy, although the rifle delivered good accuracy with other cases. They have stated that they now knew why.

At the same time, the statements and questions often indicated a lack of understanding of the fundamentals of cartridge case-rifle interaction. One of the most frequently asked questions is "Will machining the case heads square eliminate the effects of poor wall concentricity?" The answer is, "No!" This was among the first things I tried in several months of experimenting, even though a basic understanding of the elasticity of metals lead me to believe that it would not be successful.

If the bolt and receiver, as well as the cartridge case, are thought of as being made of rubber, it becomes much easier to visualize what happens. Think of the bolt and receiver as being made of rubber of nearly twice the stiffness of the cartridge case. The case might be of about the stiffness of an art gum eraser and the bolt and receiver about that of the usual eraser. Then, try to conceive of just how they would stretch, bend and compress, under the force of the gas pressure, as the shot is fired.

In this visualization, it is necessary to keep several things in mind.

The resultant shape and the amount of elasticide formation is dependent on the materials, the amount of force, where the force is applied, and the dimensions and shape of the material resisting that force. Although the gas pressure inside the case is uniform, per unit of area, the resultant back thrust on the bolt and from the bolt to the receiver may not (and most likely, will not!) be on the centerline of the case head. The resistance of the bolt and receiver to the back thrust will not, on almost all actions, be the centerline of the receiver, due to the effects of loading port cutouts, magazine cutouts, lack of uniform contact of bolt lugs with receiver shoulders, etc. This is why benchrest shooters have gradually adopted cylindrical receivers, with a minimum of cutouts and why falling block, single shot rifles are not noted for high accuracy.

Also, note that the barrel, action and stock form a vibration system and that whip and vibration in the system start with the trigger release and firing pin fall, then are grossly increased by the rise in gas pressure, bullet forcement, bullet travel down the barrel and the resulting recoil force.

To analyze what happens, the gas pressure thrusting backward on the inside of the case head must be translated into the application of a mechanical force at a single point on the bolt face. If the body of the case has a non-concentric wall, it is evident that the wall will stretch more on that side, the head will move out of square, and that the point location of the back thrust on the bolt face will not be on the centerline of the case. The off-axis recoil force will, therefore, exist, regardless of whether the case head is square and is (theoretically) in full contact with a square bolt face or not. If the location of this off-axis, recoil force is constant and in the same amount, shot to shot, the effect on barrel whip and vibration will be the same and accuracy should be good, assuming good bullets, etc.

If the thin side of the case wall is in a different position, radially, from shot to shot, the axis of recoil force varies from shot to shot, in its radial location, with consequent variations in whip and vibration. In addition, the variations in resistance of the bolt and receiver, due to lack of symmetry around the axis of the barrel and receiver, will add to the whip and vibration variations, increasing dispersion.

Textbooks on "strength of materials", which deal with these problems in terms of amount of distortion, safety of design and fatigue life, state that the effects of suddenly applied forces are to be taken as twice those of forces gradually applied. When tests show that the barrel starts to move with the trigger release and firing pin fall, propelled by a spring of 18 to 30 pounds force, acting in a time of 3 to 5 thousandths of a second, it should be obvious that 50,000 pounds of gas pressure, developed in about one tenth this time, must cause a great deal more barrel movement. While it may seem unlikely, with powder charges producing 50,000 psi in a few ten-thousandths of a second, there is a difference in the rate of force application of the case head to the bolt face, shot to shot, depending on the amounts of contact or clearance between the two, because of the energy developed through momentum, with varying clearances. Even on a neck sized case, previously fired in that chamber, the

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force of the primer sets the case shoulder back, leaving a space of perhaps .001″ to .006″ between the head of the case and the bolt face at the time of powder ignition, depending on primer force, case geometry, condition of chamber, etc. Thus, there is always some impact force when the gas pressure exceeds the yield point of the brass and the case suddenly stretches to impact the bolt face. If the case head is out of square, or the bolt face is out of square, so that there is a gap at one side, the velocity of the case head on that side at the time of bolt contact is higher, the effects on barrel whip and vibration will be greater and the direction of whip influenced by the location of the impact. It is doubtful if variations on the hardness of the brass, within an individual case, have any appreciable effect.

When you have ruminated on the above to the point where you understand and accept it, ruminate a bit on the following. Exactly the same thing happens, with a cartridge case not having any effective headspace at the instant of powder ignition, as a result of the elasticity of the metals of the case, bolt and receiver, although it probably happens to a lesser degree. This situation could exist, using a rimmed case, with the rim thickness equalling the headspace. It **has happened,** in tests I have made.

The perfect case would have a wall concentric all the way from the mouth of the neck to the solid head, as well as being homogenous, and radially uniform in grain structure and in hardness. The head of the case would be perfectly square with the case axis and the solid head section would be of uniform thickness, as well as having the primer pocket exactly centered.

The perfect action would provide symmetrical support to a bolt with locking lugs having perfect contact and covering 360 degrees. The bolt face would be perfectly square with the axis of bolt, receiver and barrel. The surface transferring recoil from the action to the stock would be symmetrical and arranged so the point of force application is on the centerline of the barrel. Moreover, the center of mass of the complete rifle must lie on the centerline of the barrel-receiver axis. Tests have shown that doing nothing except cutting off a bolt handle (and arranging for a screw-in handle, inserted for extracting and loading, and removed for firing) will change the vibration characteristics to alter the point of bullet impact. Since we will never reach perfection, it is necessary to make the best use of what is reasonable, practical and economical. (We will leave the perfection of the shooter out of this!)

As an example, when Palma team shooters compete in the individual matches in other, English speaking countries, they are required by the rules to use the selected lots of 7.62 NATO, military, ball ammunition issued to all competitors on the firing line. There is no opportunity to check case wall thickness, head squareness, etc. I have purchased from England a Swing action, which has four bolt lugs, symmetrically spaced at the head of the bolt, and built a rifle which reduces, as far as possible, the effects of case errors. From tests of fired cases, I know just how bad some of those cases are, and, from reloading them and shooting them in a conventional, two lug action, with worst orientation, I know that some of my wide shots were not due to wind!

In cartridge cases, the most important, nay, absolutely overriding requirement, is a uniform body wall. This applies to the handloader, using the same cases over and over. A case with a uniform body wall and an out of square head will increase dispersion, the amount depending upon orientation in the chamber. New cases, with out of square heads, tend to square up in a couple of firings of full loads in a proper rifle, or they could be faced square. Other errors can be eliminated, as by neck turning. Without some means of inspecting case body walls, the shooter has no way of knowing if the wall concentricity is good or bad, or where the error is located. He is simply "playing cartridge case roulette" as to the magnitude of the error and its location when the round is chambered. The resulting errors in bullet impact may give false and erroneous results to otherwise carefully controlled tests, involving other aspects of accuracy. In addition, the case wall inspection gage will pay for itself in terms of the savings in time, components and in barrel life, from the usual method of attempting to select cases by firing. Depending on orientation in the chamber, a case might be fired several times, with random orientation, before it would show evidence of poor wall concentricity by an off shot.

Experiments with cartridge cases have made me fully realize the importance of proper mating of locking lugs and shoulders, square bolt faces, and threads and shoulders of barrel and receiver square to the axis of receiver and barrel. These things are not easy to detect. When rebarreling a rifle, the bolt lugs and the receiver shoulders may seem to show a good bearing, but this bearing may actually be occuring only under the elastic distortion of powder gas pressure. After developing test methods, I have been astonished to find many rifles with poor lug bearings, which, from casual observation, seem all right.

There are cartridges, loads, chambers and conditions where the case head does not come back to impact the bolt face. This does not usually apply to rifles used for bench rest or .30 caliber, competitive shooting, but it happens with some light

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loads with jacketed bullets, most cast bullet loads, and such rifles as the usual, factory, .30-30. In these rifles, the roughness of the chamber walls, the strength of the case, the relatively low pressures and the absence of grease or oil in the chamber result in not stretching the case walls beyond the yield point, the primer backs out, contacts the bolt face and will, upon inspection, be seen to be standing above the head of the case by an amount approximately equal to the effective headspace for that round. Under these circumstances, the above analysis does not apply.

It is a great deal easier to find large errors than small errors. The important factor in the discovery of the effects of cartridge case errors was that I happened to be using what turned out to be an exceptionally poor lot of Lake City, match brass, once fired in M-14 rifles, which I was full length resizing in a small base die. Later inspection showed that less than 10% of the cases had acceptable walls (.002″ and under) and that many of them were out of concentricity by amounts of .008″ to .012″. Full length sized in the small base die, heads were out of square by amounts up to .006″ and .007″. Since the error in bullet impact is directly proportional to the error in case wall concentricity, error in head squareness, or the combination of the two, the magnitude of errors resulted in bullet impact errors of nearly one minute, with the case in the worst chamber orientation. This enlarged groups by almost two minutes of angle from what I expected the rifle to do with these loads and components. A later test of one lot of commercial cases showed 94% of them to have walls uniform within .002″, or less. I never would have found the phenomenon with this lot of cases!

I have made the statement, verbally and in print, that I have not found any reference, in an extensive study of firearms and ballistics literature, as to the effects of cartridge case errors in body wall thickness or head squareness on accuracy, nor have I found anyone in the firearms industry who was aware of it. That statement still stands, with one exception. Probably the most exhaustive work on ballistics is that of the "Lehrbuch der Ballistics" (Textbook of Ballistics) authored by Cranz and published in Berlin in 1926. Unfortunately, I don't read German. To my joy, I found that the U.S. Navy had translated it during WW II and obtained the loan of a copy. There is one statement of special significance. "It is possible that there can be an internal, off-axis, recoil force." This is in the section on barrel vibration.

In closing, may I suggest that all shooters do a bit of reading of probability of fire? It has been covered in *"Rifleman"* articles, there is a chapter on it in the 1929 *"British Textbook of Small Arms"* and every ordinance handbook has a chapter on it. Probability of fire establishes, on a mathematical basis, what accuracy performance one may expect from a gun. Unfortunately, the great majority of shooters and handloaders have little idea of just what one may expect from a rifle-ammunition combination. Some benchrester with a background in mathematics should do an article for *"Precision Shooting"*, on probability, intelligible to the average person with limited mathematical knowledge.

The following will give some idea of what one may relistically expect from a rifle-ammunition combination. If one fires a large number of shots at a target, under conditions unaffected by weather, and under controlled conditions of firing, then inscribes a circle around the center of impact of a size to just include the centers of the inner 50% of all shots fired, the diameter of that circle is the "circular probable error". If we take the value of that diameter as 1, the size of the circle to enclose 99% of the shots fired is likely to be something between 2.2 and 3.4, depending on the rifle and ammunition. If we had fired this large number of shots in five shot groups, the smallest groups would be about .5, 10% of all groups would be about .7 and under, and 10% would be 1.5 and larger. The plot of the distribution of all groups on graph paper would result in a typical, bell shaped distribution curve. Bullet impact is completely random, shot to shot. Group sizes are completely random, group to group, within the probable limits. Groups are random in shape and, though they tend to be more or less round, may be vertical, horizontal, or diagonal. The benchrester, shooting for groups, is simply gambling on the two widest shots of the number fired for group, out of the probable error for that many shots. Of course his skill enters in, not only in the shooting, but in the preparation of ammunition, but beyond that, even assuming perfection in his performance, the expected results can vary by a factor of more than 4!

In tests such as that to establish the effects of case wall and head squareness error, it is absolutely necessary to fire enough groups, under controlled conditions, to establish that the results show a genuine difference, not simply the irregularities which must be expected, group to group.

When you only get one chance

You wait a lifetime for a trophy like this. You're confident because you know your gun and your ammunition. You have loaded it for just the stopping power you need.

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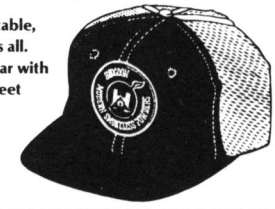

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1981 Postal Matches.

Lt. Col. Rick Hornbeck
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The 1981 International Postal Matches ended with all three classes establishing new Postal Match records. The old Heavy Benchrest Rifle Postal record set in 1977, .3825" was bettered by the winning team from Australia this year with a new record of .3680". The old Light Varmint record set in 1977 was .2954" and now is .2856", set by the winning U.S. team. And the old Heavy Varmint record set by the U.S. team in 1979 with a .2912" was bettered by this year U.S. team with a .2654". Final team standings were as follows;

Australia,	LV, .3843" 3rd;	HV, .3692" 3rd;	HB, .3680" 1st.
Canada,	LV, .3331" 2nd;	HV, .3615" 2nd;	HB, .4839" 3rd.
U.S.,	LV, .2856" 1st;	HV, .2654" 1st;	HB, .3996" 2nd.

Each team member in each country is awarded a Postal Match medallion. The 1981 matdhes are the twelfth, the first held in 1970 between Australia and the US. Each affiliated country may enter a team for one or more of the three classes. Those countries which shoot their matches on ranges in meters with groups measured in millimeters have scores that are converted to yards and inches. The US and some other countries, select the top performers and their scores fired in IBS Championships for Light Varmint, Heavy Varmint and Heavy Benchrest Rifle. It is IBS policy that a competitor can be on one team only each year. Therefore, often a competitor with a championship placement of six or seventh and on one occasion eight, may find he or she is a member of an IBS team after the teams are formulated.

My thanks to the members of the IBS International Committee for their help in putting these matches togeather each year with data and information.

Australia - Teams

Light Varmint:	100 yards	200 yards	Grand Agg.	Team Score	
Ann Brummell	.2920"	.4240"	.3580"		
Col. Tucker	.3472"	.4236"	.3854"		
Alex Chryss	.2900"	.4868"	.3884"		
Robin Elton	.3004"	.4806"	.3905"		
Noel Weston	.3188"	.4800"	.3994"	.3843"	3rd
Heavy Varmint:					
Michael Leisser	.2860"	.4222"	.3541"		
Ann Brummell	.3208"	.4080"	.3644"		
Lee Bettridge	.3120"	.4228"	.3674"		
John Edmed	.2700"	.4778"	.3739"		
Col. Tucker	.4096"	.3632"	.3864"	.3692"	3rd
Heavy Benchrest Rifle:					
Tony Allinson	.3032"	.3048"	.3040"		
Denis Tobler	.2952"	.3524"	.3238"		
Steve Sori	.3500"	.4278"	.3889"		
Randal Miller	.4064"	.3742"	.3903"		
Ron Marsden	.4956"	.3706"	.4331"	.3680"	1st

Australia - Equipment

Light Varmint: Name	Cal. Action	Barrel Scope	Stock G/Smith	Load	Bullet	Case Primer
A. Brummell	4 X 40 Sl. 40X	Hart Lyman 20	TreloarC/F M.Iwatsubo	26.6 H322	Malsby 68	Rem 205M Fed
Col. Tucker	6MM PPC Sl. 40X	Shilen Lyman 25	- R.T.M.	25.0 RL-7	Ed Watson 70	Sako 205M Fed
A. Chryss	6MM PPC Rem 600	Sherer Lyman 36	R.T.M. R.T.M.	28.0 H322	Chryss 68	Sako 205M Fed
R. Elton	6MM PPC XP 100	MADDCO Leupold 24	TreloarC/F R.T.M.	27.5 H322	Treloar 65 & 70	Sako Fed
N. Weston	6MM PPC Sl. 600	MADDCO Leupold 24	- PSECO	28.1 H322	Ed. Watson 70	Sako Fed.
Heavy Varmint:						
M. Leisser	.222.5 Shilen	Shilen Leupold	Shilen Shilen			
	6MM PPC Rem	Hart Leupold	Brown F/G Davey			
A. Brummell	6MM PPC Wichita	Hart Leupold 24	TreloarC/F R.T.M.			
L. Bettridge	6MM PPC Shilen	MADDCO Leupold 24	RTM Alloy W.G.S.			
	308 Shilen	MADDCO Leupold 24	RTM Alloy W.G.S.			
J. Edmed	6MM PPC Wichita	Hart Leupold 24	RTM Alloy R.T.M.			
Col. Tucker	6MM PPC Sl. 40X	Shilen Lyman.25	- R.T.M.			
Heavy Benchrest Rifle:						
T. Allinson	6X47 Rem	MADDCO Rem 20	FWL Rail R.T.M.			
D. Tobler	22 PPC Rem	Hart Redfield 24	Self-Rail R.T.M.			
S. Sori	22PPC Rem 700	Hart Leupold 24	RTM Rail R.T.M.			
R. Miller	308 Rem	McMillan TASCO 20	Rail PSECO			
R. Marsden	6MM PPC Hart 1A	Hart Lyman 20	RTM Rail R.T.M.			

Canada - Teams

Light Varmint:	100 yards	200 ya
Bob Hawkins	.2920"	.3392'
Vic Swindlehurst	.2440"	.4153'
Mel Walker	.2898"	.3734'
John Murdoch	.2358"	.4505'
Jim Fedorowich	.2396"	.4518'
Heavy Varmint:		
Paul Burns	.3142"	.3720'
Walter Levick	.3228"	.3636'
Howard Elsworth	.3158"	.3821'
Bill Leeper	.3508"	.4126'
Brian Shoemaker	.3340"	.4474'
Heavy Benchrest Rifle:		
Nobby Uno	.4052"	.4330'
Dave Wilson	.4140"	.5436'
Lowell Boyd	.4343"	.5442'
Joe Mendham	.4560"	.5532'
Al Mirdoch	.4598"	.5955'

Canada - Equip

Light Varmint: Name	Cal. Action	Barrel Scope	
B. Hawkins	6MM PPC 40X	Hart Leupold	
V. Swindlehurst	6MM PPC Own	Hart Weaver	
M. Walker	6MM PPC Swindlehurst	Hart Leupold	
J. Murdoch	6MM PPC WBR 1375	Hart Leupold	
J. Fedorowich	6MM PPC WBR 1375	McMillan Leupold	
Heavy Varmint:			
P. Burns	6MM PPC Slv 40X	Hart Lyman/Sie.	
W. Levick	6X47 XP 100	Hart Lyman/Sie.	
H. Elsworth	6MM PPC 40X	Hart Leupold 24	

	-	Shelley	Rem
	4895	-	Rem
F/G	-	Shelley	Sako
	4198	-	205M Fed
rC/F	28.0	Malsby	Sako
	H322	68	205M Fed
loy	25.0	Malsby	Sako
	4198	62.5	Fed
loy	40.5	Sierra	Fed
	3031	168	RWS
loy	28.0	McCracken	Sako
	H322	70	Fed
	25.0	Metzger	Sako
	RL-7	70	205M Fed
il	27.5	Ed Watson	Rem
	H322	62.5	205M Fed
ail	28.0	McCracken	Sako
	H322	53	205M Fed
il	28.0	Treloar	Sako
	H322	54	205M Fed
	44.5	Sierra	Rem
	748	168	210 Fed
il	28.0	Ed Watson	Sako
	H422	65	205M Fed
		Treloar	
		70	

s

00 yards	Grand Agg.	Team Score
.3392"	.3156"	
.4153"	.3296"	
.3734"	.3316"	
.4505"	.3431"	
.4518"	.3457"	.3331" 2nd
.3720"	.3431"	
.3636"	.3432"	
.3821"	.3489"	
.4126"	.3817"	
.4474"	.3907"	.3615" 2nd
.4330"	.4191"	
.5436"	.4788"	
.5442"	.4892"	
.5532"	.5046"	
.5955"	.5276"	.4839" 3rd

Equipment

	Stock G/Smith	Load	Bullet
	Self	28.0	Brawand
	Swindlehurst	H322	71.5
	Self	27.6	Hale
	Self	H322	68
	Swindlehurst	-	Gale
d	Swindlehurst	-	-
	Sinclair	25.0	Watson
	Masker	H4198	68
	McMillan	-	Nanzer
	Gammon-Hayes	H322	62
	Self	27.6	McCracken
e.	Hart	H322	70BT
	Sietz	27.0	McCracken
e.	Leeper	4895	70
	Leeper	30.0	McCracken
24	Leeper	4895	70

B. Leeper	6MM PPC	Sherer	Leeper	27.5	McCracken
	Wichita	Seupold 24	Leeper	H322	70
B. Shoemaker	22 PPC	Hart	Gammon-Hayes	28.0	Brawand
	40X	Leupold	Masker	H322	52

Heavy Benchrest Rifle:

N. Uno	.308	Hart	Uno	41.5	McCracken
	722	Red. 24	Uno	4895	150
D. Wilson	.308	Hart	Ferguson	39.5	McCracken
	Hart #4	Unertl	Hart	H322	150
L. Boyd	.308	Shilen	Uno	40.5	McCracken
	Slv 40X	Lyman 20	Uno	4895	150
J. Mendham	6MM PPC	Hart	Uno	28.5	McCracken
	Slv 700	Leupold 24	Uno	4895	70
A. Mirdoch	.222	Hart	Hart	20.5	McCracken
	Hart #4	Unertl	Mech	4198	53

USA - Teams

Light Varmint:

	100 yards	200 yards	Grand Agg.	Team Score
John Brown	.2676"	.2885"	.2780"	
M. Hensley	.2302"	.3295"	.2798"	
Smiley Hensley	.2278"	.3361"	.2819"	
Seely Masker	.3286"	.2594"	.2940"	
J. Borden	.2910"	.2979"	.2944"	.2856" 1st

Heavy Varmint:

Howard Levy	.1828"	.2963"	.2395"	
Gordon Euber	.2408"	.2952"	.2680"	
Francis Broussard	.2026"	.3398"	.2712"	
Bill Minneman	.1964"	.3505"	.2734"	
Brian Rubright	.2174"	.3324"	.2749"	.2654" 1st

Heavy Benchrest Rifle:

John Demmer	.3566"	.4019"	.3792"	
Robert Adamowicz	.4066"	.3740"	.3903"	
Alan Euber	.4136"	.3854"	.3995"	
L. K. Walters	.3770"	.4367"	.4068"	
Joe Lockhart Sr.	.3594"	.4854"	.4224"	.3996" 2nd

USA - Equipment

Light Varmint:

Name	Cal. Action	Barrel Scope	Stock G/Smith	Load	Bullet	Case Primer
J. Brown	6MM PPC	Hart	Self	29.5	DJ	Sako
	XP 100	Leupold	Masker			Fed.
M. Hensley	6MM PPC	Hart	Masker	28.5	Euber	Sako
	XP 100	Lyman	Masker			Fed.
S. Hensley	6MM PPC	Hart	Sinclair	28.5	Euber	Sako
	40X	Leupold	Sinclair			Fed.
S. Masker	6MM PPC	Hart	Masker	29.3	Euber	Sako
	40X	Leupold	Masker			Fed.
J. Borden	6MM PPC	Hart	McMillan	28.0	69	Sako
	Slv 722	Leupold	Hart			Fed.

Heavy Varmint:

H. Levy	6MM PPC	Hart	Masker	28.0	Hollister	Sako
	Slv XP 100	Leupold 24	Masker	H322		Fed.
G. Euber	22 PPC	Hart	Butler	29.0	Hollister	Sako
	600	Lyman/Sie	Hollister	201		Fed.
F. Boussard	6MM PPC	Hart	Mosely	-		Sako
	Hall	Leupold	Miller	H4895	-	Fed.
B. Minneman	6MM PPC	MADCO	Sinclair	29.0	Detch	Sako
	Hall	Leupold 36	Self	203		Fed
B. Rubright	6MM PPC	Hart	Self	26.7	Self	Sako
	Wichita	Leupold	Cay's			Fed

Heavy Benchrest Rifle:

J. Demmer	308W	Hart	Hart	41.5	Sierra
	Hart	Leupold	Hart	4895	168 gr

Next Page

IBS Hunter 1982 Schedule

July 7 — Thurmont Conservation and Sportsmans Club
Hunter Class only. 100 yds.

July 11 — Capital City R&P Club
200 Hunter & HV for score
Maine State Championship

July 24-25 — IWLA York
100-200 Pa. State Champ.

Aug. 1 — Sulphyr Springs
100 Hunter HV/LV for Score

Aug. 8 — Thurmont Conservation and Sportsmans Club
Hunter Class only. 100 yds.

Aug. 14 — Factoryville
100 Hunter HV/LV for Score

Aug. 15 — IWLA York
100 Hunter York Co. Champ.

Aug. 28 — EBSA
100 Hunter N.J. State Champ.
HV for Score

Sept. 12 — Sulphyr Springs
100 Hunter HV/LV for Score

Sept. 12 — Thurmont Conservation and Sportsmans Club
Hunter Class only. 100 yds.

Sept. 18-19 — Mainville
100-200 IBS Championship

Oct. 3 — Sulphyr Springs
100 Hunter

Oct. 3 — Thurmont Conservation and Sportsmans Club
Hunter Class only. 100 yds.

Oct. 10 — Mainville
100 Hunter HV/LV for Score

Oct. 17 — IWLA York
100 Hunter

Oct 24 — Mainville
100 Hunter HV/LV for Score

Nov. 7 — Mainville
100 Hunter HV/LV for Score

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VA. STATE CHAMPIONSHIP
APRIL 24-25,1982

HEAVY VARMINT 100 YDS.		HEAVY VARMINT 200 YDS.		HEAVY VARMINT GRAND AGG.	
1. Wendell Dean..	.2428	1. Harlan Hoffer.	.2728	1. Wendell Dean..	.2704
2. Smiley Hensley	.2596	2. Wendell Dean..	.2980	2. Smiley Hensley	.3002
3. Tony Boyer....	.2744	3. Carl Lynn.....	.3371	3. Tony Boyer....	.3228
4. Faye Boyer....	.2948	4. Ross Perry....	.3385	4. Tom Metzger...	.3468
5. Lou Church....	.3012	5. Smiley Hensley	.3408	5. Lou Church....	.3483
S/G- Carl Lynn	.150	S/G- Harlan Hoffer	.294	COMPETITORS - 42	

LIGHT VARMINT 100 YDS.		LIGHT VARMINT 200YDS.		LIGHT VARMINT GRAND AGG.	
1. Faye Boyer....	.2362	1. Wendell Dean..	.3941	1. Glenn Newick..	.3627
2. Tom Metzger...	.2600	2. Glenn Newick..	.4479	2. Tom Metzger...	.3846
3. Glenn Newick..	.2774	3. Harold Berkey.	.4544	3. Faye Boyer....	.3849
4. Smiley Hensley	.2862	4. Bob White.....	.4601	4. Smiley Hensley	.3924
5. John Brown Jr.	.3032	5. Smiley Hensley	.4986	5. John Brown.Jr.	.4015
S/G- Glenn Newick	.082	S/G- Harold Berkey	.353	COMPETITORS-44 (STARTED)	

HEAVY VARMINT EQUIPMENT

(ALL USED 6PPC CAL, HART BARRELS,& LEUP. 36X SCOPES)

TWO-GUN AGG.

1. Smiley Hensley .3463
2. Tom Metzger... .3657
3. John Brown Jr. .3811
4. Faye Boyer.... .3863
5. Alan Euber.... .3989

	ACTION	GUNSMITH	STOCKER	LOAD	BULLET
Wendell Dean	Hart	Sinclair		28.5 H322	Euber
Smiley Hensley	40X	Sinclair		28.3 H322	Euber 68 BT
Tony Boyer	Hall	Hollister	Hollister	28.3 H322	James 68 BT
Tom Metzger	40X	- -	- -	- -	- -
Lou Church	Rem.	Masker		28.1 H322	Euber 68 BT

LIGHT VARMINT EQUIPMENT

(ALL USED 6PPC CAL & LEUP. 36X SCOPES EXCEPT-HENSLEY USED UNERTL 36X)

	ACTION	BARREL	GUNSMITH	STOCKER	LOAD	BULLET
Glenn Newick	CPS	Hart	White	White	29.0	H322-Bruno 70BT
Tom Metzger	40X	McMillan	Brackney	Brackney		H322-Metzger 68
Faye Boyer	XP100	Hart	Masker	McMillan	27.7	H322-Euber 68
Smiley Hensley	Rem.	Atkinson	H-S	H-S	27.5	H322-Bruno
John Brown Jr.	XP100	Hart	Masker	Self	28.1	H322-DJS 70 BT

1981 International Postal Matches.

R. Adamowicz	308	Hart	Self	38.3	Sierra
	700	Leupold	Self	4895	168 gr
A. Euber	6MM PPC	Hart	Self	29.2	Detsch
	Stolle	Lyman/Sie	Hollister	N201	
L. K. Walters	308	Hart	Stolle	42.0	Walters
	Stolle	Unertl	Walters	4895	165 gr
J. Lockhart	308	Hart	Jesiro	40.0	Walters
	Hart	Unertl	Walters	4895	165 gr

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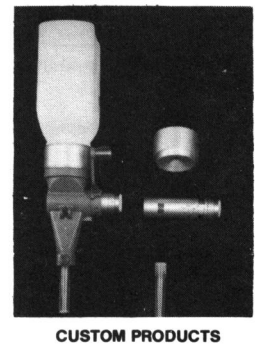

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IBS REGISTERED HUNTER
MAY 2,1982

MASTER	SCORE	CAL.	SCOPE	LOAD		BULLET	PR.
1. Carl Peters	249-10x	6x47	T-6	29.5	748	Custom -	Fed.
2. Clar. Hammonds	249-6x	6PPC	T-6	27.0	H322	Custom 70	Fed.
3. Agnes Sabo	248-7x	308	Lyman	41.0	H4895	Vince 168	Fed.
4. Paul Olewine	247-12x	6MM	Weaver	28.0	H322	Own 70	Fed.
5. Bill Gebhardt	247-9x	6PPC	Leupold	27.5	H322	Olewine 70	F205

HUNTER

1. Terry Wagner	244-4x	308	T-6	39.0	4895	Sierra 168	Fed.
2. Arnold Halye	243-9x	6PPC	Weaver	27.5	H322	Fritz 62.5	210
3. Randall Fritz	242-4x	6PPC	Weaver	27.0	H322	Fritz 62	Fed.
4. Robert Antonelli	241-8x	308	Weaver	43.0	4320	Custom 168	Br.
5. Randy Fritz	239-3x	6PPC	Lyman	27.5	H322	Fritz 62.5	205

17 - COMPETITORS (ALL CLASSES)

HEAVY VARMINT FOR SCORE SHOOT
IBS REGISTERED

H.V. CLASS	SCORE	CAL.	SCOPE	LOAD		BULLET	PR.
1. Carl Driscoll	249-15x	308	Lyman	38.0	4064	Sierra 168	9½
2. Jeanne Lynn	249-13x	6PPC	Lym/Sieb.	28.0	748	Lynn 70	205
3. Karl Bennage	249-9x	6PPC	Leupold	26.5	H322	Brawand 68	F205
4. Ed Starzinski	249-6x	6PPC	Leupold	27.5	H322	Sierra 70	Fed.
5. Joseph Banik	249-5x	6MM	Leupold	30.0	748	Sierra 70	Fed.

11 - COMPETITORS (H.V.)

IBS 200-300 YARD CHAMPIONSHIP
STITSVILLE, CANADA
JULY 18-19, 1981

200 YARD HEAVY VARMINT	300 YARD HEAVY VARMINT	GRAND AGG. HEAVY VARMINT
1. N. Boop..... .2564	1. N. Boop..... .3813	1. N. Boop..... .3188
2. T. Boyer..... .2954	2. G. Price..... .4645	2. G. Price..... .3875
3. J. Hutchinson. .2976	3. L. Euber..... .4685	3. L. Euber..... .4176
4. G. Price..... .3105	4. R. DeMonstoy.. .4700	4. A. Euber..... .4376
5. D. Price..... .3106	5. P. Wiper..... .5059	5. P. Wiper..... .4438
S.G. N. Boop..... .235	S.G. G. Newick... .521	35- COMPETITORS

200 YARDS LIGHT VARMINT	300 YARDS LIGHT VARMINT	GRAND AGG. LIGHT VARMINT
1. B. White..... .3726	1. N. Boop..... .4161	1. B. White..... .4020
2. G. Hess..... .4113	2. B. White..... .4315	2. N. Boop..... .4181
3. N.Boop..... .4201	3. T. Boyer..... .5270	3. T. Boyer..... .4754
4. T. Boyer..... .4237	4. P. Wiper..... .5296	4. R. Baker..... .4995
5. L. Euber..... .4249	5. R. Baker..... .5538	5. E. Euber..... .5206
S.G. Eric Euber.. .302	S.G. Tony Boyer.. .543	25- COMPETITORS

200 YARDS HEAVY BENCH	300 YARDS HEAVY BENCH	GRAND AGG. HEAVY BENCH
1. A. Euber..... .4382	1. A. Euber..... .5002	1. A. Euber..... .4692
2. E. Cole..... .4765	2. E. Cole..... .6754	2. E. Cole..... .5759
3. R. DeMonstoy.. .4856	3. R. DeMonstoy.. .6963	3. R. DeMonstoy... .5909
S.G. G. Newick... .530	S.G. A. Euber.... .998	9- COMPETITORS

EQUIPMENT H.V. (ALL 6PPC CAL.)

	Action	Barrel	Scope	Smith	Stocker	Load		Bullet
N. Boop	Hall	Hart	Leupold	Pindell	Mitch	27.0	H322	Ocock 70
G. Price	Hart	Hart	Leupold	Price	Price	28.0	4895	Malsby 72½
L. Euber	Rem.	Scherer	Lym/sieb	Masker	Masker	28.1	N201	Euber 68
A. Euber	Hall	McMillan	Lym/Sieb	Hollister	Self	29.0	N201	Detsch 68
P. Wiper	Hart	Hart	Lym/Sieb	Hart	Hart	30.0	748	Euber 68
EQUIPMENT L.V. (ALL 6PPC CAL.)								
B. White	CPS	Hart	Lym/Sieb	White	White	28.0	H322	Bruno 68
N. Boop	Hall	Hart	Leupold	Pindell	Mitch	27.0	H322	Ocock 70
T. Boyer	Hall	Hart	Lym/Sieb	Hollister	Self	27.7	H322	Euber 68½
R. Baker	Rem.	Hart	Leupold	Miller	Miller	28.0	H322	Detsch 70
E. Euber	CPS	Hart	Leupold	CPS	CPS	29.0	N201	Detsch 68
EQUIPMENT H.B. 6PPC EXCEPT E. Cole 30-06 CAL.								
A. Euber	Stolle	Hart	Lym/Sieb	Hollister	Self	29.0	N201	Detsch 68
E. Cole	Hart	Hart	Unertl	Hart	Self	47.0	4320	Sierra168
R. DeMonstoy	Rem.	Hart	Unertl	Masker	Kempfer	28.0	H322	Brawand71½

IBS FINAL 1982 VARMINT SCHEDULE

July 3-4 — South Creek Rod & Gun Club
Penna. Varmint Champ.
100-200 HV/LV

July 10-11 — Council Cup
100-200 HB/HV/LV

July 17-18 — Mainville Sportsmen Club
IBS 200-300 Championship
HB/HV/LV

July 24-25 — Painted Post Field & Stream
100-200 Meters
HB/HV/SP

July 31-1 — Camillus Sportsmen Club
New York Varmint Champ.
HV/LV

Aug. 7-8 — Council Cup
100-200 HV/LV

Aug. 18-19-20-21 — Kelbly's Rifle Range, Ohio
IBS Championship
100-200 HB/HV/LV

Sept. 4-5 — EBSA New Jersey
100 N.J. Championship
HV(4) LV(5)

Sept. 11-12 — Va. Chapter No. 1 IWLA
100 HB/HV/LV

Sept. 11-12 — Pine Tree Rifle Club
100-200 HV/LV

Oct. 9-10 — Brunswick Gun Club
100-200 HV/LV

Joseph E. Higgins
Match Schedule Chairman

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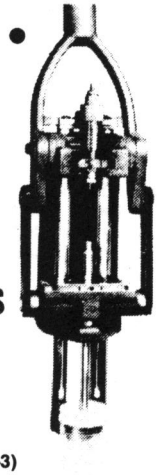

DUNHAM'S BAY,N.Y.
****
100 METERS H.V. IBS REG.
MAY 2,1982

1. Lee Euber..... .2392
2. Lou Church..... .3406
3. Seely Masker..... .3426
4. Joe Winters..... .3462
5. Brian Hollister..... .3524
6. Dave Burke..... .3718
7. Carl Menard..... .3814
8. Eric Euber..... .3872
9. Dan Hufnail..... .4018
10. Dick Maretzo..... .4036
SMALL GROUP - Lee Euber..... .140
25 - COMPETITORS

Congratulations to Lee Euber for his first place finish today and also as the club champion for the 1982 winter league season.

FINAL SEASON STANDINGS

1. Lee Euber..... .3172
2. Dick Maretzo..... .3420
3. Joe Winters..... .3467
4. Eric Euber..... .3713
5. Allie Euber..... .3934
6. Gordy Euber..... .4011
7. Dave Burke..... .4097
8. Seely Masker..... .4098
9. Joe Vinci..... .4118
10. Dave Brennan..... .4136

DUNHAMS BAY. N.Y.
****
100 METERS IBS REGISTERED H.V.

MARCH 14,1982

1. Dick Maretzo.. .4314
2. Joe Vinci..... .4672
3. Gordy Euber... .5098
4. Lee Euber..... .5200
5. Seely Masker.. .5268

21-COMPETITORS
Partly sunny and mild with winds gusting up to 40 MPH. Seely Masker won hunter class with a good 247-10x, Tom Svack 239-13x and Ira Farnsworth 236-6x.

MARCH 28, 1982

1. Eric Euber... .3520
2. Lee Euber.... .3646
3. Allie Euber.. .3904
4. Seely Masker. .4318
5. Lou Church... .4568

20- COMPETITORS
Very tough conditions. Fran Vale won the hunter class with a very good 248-10x, Seely had 246-10x, and Tom Svack had 244-3x.

APRIL 18,1982

1. Lou Church.....3972
2. Ken Viara..... .4268
3. Joe Vinci..... .4308
4. Seely Masker.. .4312
5. Norm Dixon.... .4354

29-COMPETITORS
Very windy. The hunter class was won by Ira Farnsworth with a 246-6x, Seely 243-7x and Fran Vale 242-7x.

EQUIPMENT
(All listed used 6PPC caliber, Hart barrels and Fed. 205 primers.)

	ACTION	SCOPE	SMITH	STOCKER	LOAD	BULLET
MARCH 14,1982						
Dick Maretzo	Shilen	Leupold 36	Masker	Masker	29.5 N201	Euber 68BT
Joe Vinci	Hart	Ly/Sieb.30	Masker	Vinci	28.0 N201	Euber 68
Gordy Euber	Sl/700	Ly/Sieb.30	Hollister	Masker	29.5 H322	Euber 68½
MARCH 28,1982						
Eric Euber	Sl/600	Ly/Sieb.30	Hollister	Self	30.0 N201	Euber 69BT
Lee Euber	Rem/600	Ly/Sieb.30	Masker	Vinci	30.0 N201	Euber 68BT
Allie Euber	Sl/600	Ly/Sieb.30	Hollister	E. Euber	30.0 N201	Euber 69BT
APRIL 18,1982						
Lou Church	Rem/40x	Leupold 36	Masker	Masker	28.0 H322	Euber 68BT
Ken Viara	Sl/40x	Leupold 36	Masker	Meyer	28.0 N201	Euber 68BT
Joe Vinci	Hart 1A	Ly/Sieb.30	Masker	Vinci	28.0 N201	Euber 68BT

EQUIPMENT LIST

(WINNERS ALL USED 6PPC CAL, HART BARRELS,STOCKER-MASKER &FED 205s.)

	ACTION	SCOPE	GUNSMITH	LOAD	BULLET
Lee Euber	Sl. 40x	Leupold 36x	Hollister	30.0 N201	Euber 68BT
Lou Church	Rem.	Leupold 36x	Masker	28.0 H322	Euber 68BT
Seely Masker	Wichita	Leupold 36x	Masker	29.5 N201	Euber 68
Joe Winters	Shilen	Lyman 35x	Masker	28.0 H322	Euber 68
B. Hollister	Stohle	Lyman/Siebert 30x	Hollister	28.5 N201	Detsch 70

CAMILLUS SPORTSMEN CLUB
****
WINTER LEAGUE HV-UNREGISTERED

FEBRUARY 7,1982

1. F. Calicchia..... .4480
2. G. Getty..... .4786
3. J. Stekl..... .5010
4. F. Stohner..... .5198
5. T. Simbaru..... .5300
S/G - Tim Simbaru..... .260
16 - COMPETITORS

*****

FEBRUARY 21,1982

1. G. Getty..... .2586
2. E. Joiner..... .2886
3. F. Calicchia..... .2906
4. T. LeBaron..... .3044
5. G. Pratt..... .3046
S/G - Frank Calicchia.... .179
27 - Competitors

*****

MARCH 7,1982

1. Tim Simbaru..... .3086
2. Gary Pratt..... .3374
3. Frank Calicchia..... .3410
4. Bob Iamanna..... .3462
5. G. Getty..... .3530
S/G - F. Stohner..... .186
15 - COMPETITORS

*****

MARCH 21,1982

1. J. Stekl..... .2670
2. G. Getty..... .3508
3. M. Estep..... .3614
4. A. Blensinger..... .3686
5. F. Calicchia..... .3700
S/G - G. Getty..... .168
24 - COMPETITORS

Hank Gonnella

DUNHAM'S BAY
****
HUNTER CLASS
MAY 2,1982

1. Tom Svack..... 246-8x
2. Seely Masker..... 245-13x
3. Charles Fountaine..... 245-7x
4. Dave Burke..... 238-3x
5. Fran Vahle..... 237-7x
8 - COMPETITORS

This match closes out the winter league season. Seely Masker was the winner of the winter league with a five match aggregate of 1234-44x. That would have made a good score in Transcontinental Hunter Rifle League competition. Match reports have constantly shown bitter cold, snow, and windy conditions throughout the winter season.

Charlie Fountaine

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APRIL 17,1982

100 METER

1. B. DeMonstoy..... 247-6x
2. W. Coye..... 245-5x
3. P. Phillip..... 243-7x
4. F. Stohner..... 241-5x
5. T. Dechru..... 240-6x

200METER

1. F. Stohner..... 241-8x
2. P. Phillip..... 240-5x
3. B. DeMonstoy..... 240-4x
4. J. Stekl..... 239-6x
5. W. Coye..... 239-4x

GRAND AGG.

1. B. DeMonstoy..... 487-10x
2. W. Coye..... 484-9x
3. P. Phillip..... 483-12x
4. F. Stohner..... 482-13x
5. A. Blensinger..... 477-9x

14-COMPETITORS
The weather didn't want to cooperate with us. We had warm sunshine, later cold heavy winds and then pounding rain. In spite of this everyone had a great time and a delicious meal.

Bob DeMonstoy

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NBRSA News

Edited by Robert Morris

GERACI WINS CRAWFISH INVITATIONAL

Besides the crawfish broil on Saturday evening, the Crawfish Invitational is a fine match. It gives shooters an opportunity to get going after a long and sometimes hard winter. It has become almost a tradition with many that the Crawfish is the opening match of the season.

This year it served another purpose. It gave a preview of the 1982 NBRSA Sporter/Varmint National Championships. Although all the top shooters in the country didn't make it, two of the contenders for the crown did and waged a head-to-head battle.

Don Geraci came out on top, winning the Two-Gun Title on the basis of taking both the Light Varmint and Heavy Varmint matches. Geraci, Metairie, LA, had a .2588 Two-Gun Grand. Close behind was Jef Fowler, Midland, TX, who had a .2735.

Fowler, who won the Sporter/Varmint title last year in Austin, TX, for the second straight year was closely pursued by Geraci last July who was runner-up in the Three-Gun just .0019 back. Geraci promises an even stronger surge this year at the Nationals.

For what it is worth, Fowler edged out Geraci last year for the Crawfish Invitational's Two-Gun crown.

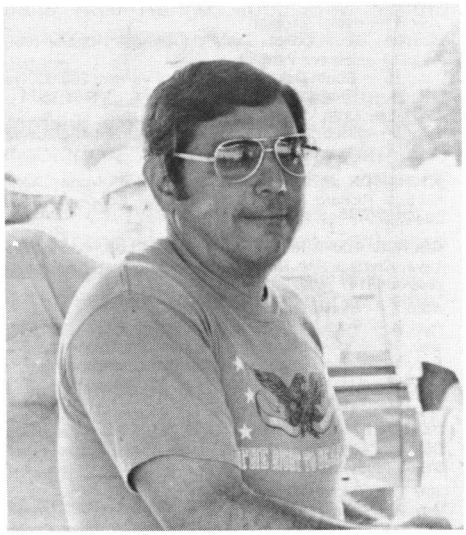
For the rest of the 66 shooters in the two-day match it was a chance to get together again with old friends, hone up some shooting skills and have a good time — and maybe win too. There were representatives from all states plus Canada for this year's matches at Lafayette, Louisiana. As usual too, the members of the Hub City Rifle and Pistol Club knocked themselves out to see that everyone had a good time.

In the Light Varmint it was Geraci winning the 100-yard competition, firing a fine .2354. Louis Langlinais, Lafayette, LA, was second, followed by Russell Waterman, Dale Hutcherson and Ed Brown. Fowler was in 22nd place. It was an almost turnaround at 200. Virgil King, Houston, TX, was the winner with a .2551, followed closely by Fowler with a .2559. Wayne Zito was third; Rodney Hutcherson, fourth, and Turk Takano, fifth. Geraci wound up in 16th place. However he had enough to win the Light Varmint Grand with a .2700. Fowler was seventh with .2979. Second place in the Grand went to Langlinais. Takano was third, King, fourth and Rodney Hutcherson.

Geraci fired a 22PPC McMillan barrel with a sleeved Remington 700 action and Leupold 36X scope. He loaded 28.5 grains of H-4198 with Berger 52-grain bullets. Incidently, three of the other top 10 finishers in the Light Varmint used 22PPC's and another used a plain-old and simple .222.

In the Heavy Varmint, which was also for the Gulf Coast Regional Championship, it was the same story for Geraci and Fowler — Geraci did well at 100 yards but fell back at 200. Fowler, on the other hand lagged behind the field at 100 and then surged in the 200.

Geraci won the 100-yard competition, finishing with an excellent .1996 on groups of .180, .165, .190, .214 and .249.



DON GERACI

Second place went to Bob Fisher with a .2158. Jack Yeats was third, followed by Paul Hart and Ray Brunet. Fowler was 8th with .2476. At 200 Fowler was the leader, shooting a .2505. Carroll Green was second with .2592. Mike Schetz was third, followed by Bill Minne and Robert Moseley. Geraci was 7th.

Geraci won the Grand with a .2475, just .0010 in front of Fowler. Fisher was third, Dale Hutcherson fourth and Jack Yeats fifth.

Rodney Hutcherson, Pasadena, TX, was the Junior winner in both the Light Varmint and Heavy Varmint matches. He also won last year.

Light Varmint, 100 yards: 1 — Geraci, .2354; 2 — Langlinais, .2456; 3 — Waterman, .2874; 4 — D. Hutcherson, .2886; 5 — Brown, .2966; 6 — Pete Callan, .2988; 7 — Heger, .3012; 8 — Charles Mills, .3012; 9 — Howard Dietz, .3028; 10 — James Goddard, .3070. SG — Allan Hall, .158. 200 yards: 1 — King, .2551; 2 — Fowler, .2559; 3 — Wayne Zito, .2622; 4 — Rodney Hutcherson, .2631; 5 — Takano, .2683; 6 — Earl Roach, .2721; 7 — Ron Easter, .2738; 8 — Weldon Laviolette, .2822; 9 — Ed Phillips, .2823; 10 — Larry Baggett, .2840. SG — Zito, .221. Grand: 1 — Geraci, .2700; 2 — Langlinais, .2725; 3 — Takano, .2900; 4 — King, .2927; 5 — Rodney Hutcherson, .2942; 6 — Dale Hutcherson, .2963; 7 — Fowler, .2979; 8 — Heger, .2996; 9 — Hart, .3058; 10 — Baggett, .3070.

Heavy Varmint, 100 yards: 1 — Geraci, .1996; 2 — Fisher, .2158; 3 — Yeats, .2218; 4 — Hart, .2256; 5 — Brunet, .2282; 6 — King, .2338; 7 — Phillips, .2436; 8 — Fowler, .2476; 9 — D. Hutcherson, .2486; 10 — Callan, .2608. SG — Brunet, .114. 200 yards: 1 — Fowler, .2505; 2 — Green, .2592; 3 — Scheltz, .2607; 4 — Minneman, .2747; 5 — Moseley, .2863; 6 — Sonny Malsby, .2924; 7 — Geraci, .2954; 8 — Callan, .2957; 9 — D. Hutcherson, .3024; 10 —

Continued on Page 21

NBRSA MATCH SCHEDULE

MID-CONTINENT REGION

COLORADO BENCH REST SHOOTERS, INC., Morrison Colorado. Contact Dan Dowling, 10919 W. 59th Place, Arvada, Colorado 80004, (303) 422-6884

TULSA BENCHREST CLUB, Skiatook, Oklahoma. Contact Wayne Blackketter, 7811 E. 2nd Street, Tulsa, Oklahoma 74112, (918) 835-5195

OKIE SHOOTERS, Edmund, Oklahoma. Contact Dennis Wagner, 6821 N.W. 28th Street, Bethany, OK 73008 (405) 495-2868.

Aug. 21 — All Classes, 2 p.m.
Sep.25— Oklahoma State Unlimited Championship and Heavy Varmint, 2 p.m.

SANDHILL RIFLE & PISTOL CLUB, Great Bend, Kansas. Contact Steve Ochs, 3023 17th, Great Bend, KS 67530. (316) 792-2245.

Oct. 2 — All Classes, 5 p.m.
Oct. 3 — Mid-Continent Light Varmint Championship, 9 a.m. Mid-Continent Regional meeting, Oct. 2, prior to match.

MILL CREEK BENCH REST CLUB, DeSota, Kansas. Contact Larry Kuse, 8112 W. 89th Street, Overland Park, Kansas 66212, (913) 649-7344

July 10 — Heavy Varmint, 4 p.m.
July 11 — Mid-Continent Regional Sporter Championship
Sep. 4 — Kansas State Sporter Championship, 2 p.m.
Sep. 5 — Kansas State Light Varmint Championship, 9 a.m.
Sep. 6 — Kansas State Heavy Varmint Championship, 9 a.m.

SPRINGFIELD RIFLE CLUB, Springfield, Missouri. Contact Jerry Baillie, 510 E. LaSalle, Springfield, MO 65807. (417) 881-4766.

WELD COUNTY FISH AND WILDLIFE ASSOCIATION, INC., Greeley, Colorado. Contact Len Trossen, 4941 W. 9th Street, Greeley, CO 80634 (303) 356-5868.

Aug. 8 — Sporter, 9 a.m.
Sep. 12 — Heavy Varmint, 9 a.m.

GULF COAST REGION

AUSTIN RIFLE CLUB, Austin, Texas. Contact Mary Solanik, Box 14665, Austin, Texas 78761

DIETZ RIFLE RANGE, New Braunfels, Texas. Contact Howard Dietz, Star Rt. 1, Box 65, New Braunfels, Texas 78130, (512) 885-4662

CENTRAL TEXAS BENCH REST SHOOTERS, INC., New Braunfels, Texas. Contact Terry Fridley, 14510 Angora, San Antonio, TX 78247.

July 18 — Hunter, 100 yards
Aug. 22 — Hunter, 200 yards
Sep. 4 — Texas State Sporter Championship
Sep. 5 — Texas State Light Varmint Championship

FORT STOCKTON RIFLE CLUB, Ft. Stockton, Texas. Contact Larry Baggett (915) 336-6278

June 5 — Texas State Unlimited Championship
June 6 — Texas State Heavy Varmint Championship

HUB CITY RIFLE AND PISTOL CLUB, Lafayette, Louisiana. Contact Francis Broussard, 316 Wilson St., Lafayette, Louisiana 70501, (318) 234-4426

NO WARM UP MATCHES WILL BE HELD ON REGISTERED MATCHES.

July 10 — Louisiana State Hunter Championship, 9 a.m.
July 11 — Louisiana State Hunter Championship, 9 a.m.
Aug. 22 — Hunter, 100 yards
Sep. 4 — Heavy Varmint, 9 a.m.
Sep. 5 — Hunter, 9 a.m.

MIDLAND SHOOTERS, INC., Midland, Texas. Contact Howard Scott, Box 7904, Midland, Texas 79703

July 3 — Gulf Coast Regional Sporter Championship
July 4 — Gulf Coast Regional Light Varmint Championship
July 5 — Gulf Coast Regional Unlimited Championship

NAVARRO GUN CLUB, Corsicana, Texas. Contact Robert Hull, Box 488, Corsicana, Texas 75110

SAN ANGELO GUN CLUB, San Angelo, Texas. Contact Buster Reed, 2409 Waco, San Angelo, Texas 76901

SOUTHWEST LOUISIANA RIFLE AND PISTOL CLUB, Lake Charles, Louisiana. Contact James Neal, Jr., 1203 California, Lake Charles, LA 70605 (318) 477-6440

July 25 — Hunter, 9 a.m.
Aug. 15 — Hunter, 9 a.m.
Oct. 17 — Hunter, 9 a.m.

NORTHWESTERN REGION

TRI-COUNTY GUN CLUB, Sherwood,Oregon. Contact Tom Terry 1751 SW Turner Road, West Linn, OR 97068,(503) 638-5152

July 10 — Oregon State Light Varmint Championship
July 11 — Northwestern Regional Sporter Championship
Aug. 7 — Heavy Varmint
Aug. 8 — Oregon State Hunter Championship

SNOW SHOE GUN CLUB, Kenai, Alaska. Contact Don Long, PO Box 125, Kenai, Alaska 99611

July 17 — Northwestern Regional Hunter Championship
Aug. 7 — Alaska State Hunter Championship

ENTIAT BENCH REST CLUB, #2 Canyon, Wenatchee, Washington. Contact Bill Small, Star Route, Box 4360, Entiat, WA 98822

July 25 — Hunter
Aug. 15 — Hunter

PUGET SOUND BENCHREST RIFLE CLUB, Issaquah, Washington. Contact Bill Crosby, PO Box 125, Edmonds, WA 98020 (206) 774-4730

July 17 — Northwestern Regional Unlimited Championship, 100/200 yards
July 18 — Northwestern Regional Unlimited Championship, 300 yards. Shot at Bellingham, WA.
July 18 — Hunter, Issaquah, WA
Aug. 28 — Hunter
Aug. 29 — Washington State Sporter Championship
Sep. 4 — Northwestern Regional Light Varmint Championship
Sep. 5 — Northwestern Regional Heavy Varmint Championship

NORTH CENTRAL REGION

CEDAR RAPIDS BENCHREST CLUB, Cedar Rapids, Iowa. Contact Ed Kvarda, 2406 Ellis Blvd., N.W., Cedar Rapids, IA 52405 (319) 396-0017

July 25 — Light Varmint, Heavy Varmint, 100 yards
Aug. 29 — Light Varmint, Heavy Varmint, 100 yards
Sep. 12 — Light Varmint, Heavy Varmint, 100 yards
Oct. 3 — Light Varmint, Heavy Varmint, 100 yards

WILTON RIFLE CLUB, Miscatine, Iowa. Contact Dennis Shepard, 12 Debbie Ave., Muscatine, IA 52761 (319) 264-3909

Sep. 26 — Light Varmint, Heavy Varmint, 100 yards
Oct. 17 — Light Varmint, Heavy Varmint, 100 yards

MINNETONKA GAME AND FISH CLUB, St. Francis, Minnesota. Contact Don Judd, 645 20th Ave., N.W., New Brighton, MN 55112 (612) 633-6799

July 3 — Light Varmint
July 4 — Heavy Varmint
July 5 — Hunter
Aug. 21 — Minnesota State Sporter Championship
Aug. 22 — Minnesota State Unlimited Championship
Sep. 18 — Minnesota State Light Varmint Championship
Sep. 19 — Minnesota State Heavy Varmint Championship

PRAIRIE DOG TARGET CLUB, Porcupine, South Dakota. Contact Don Deckert, Porcupine, SD 57772 (605) 288-1919.

July 3 — Heavy Varmint
July 4 — South Dakota State Light Varmint Championship
Aug. 14 — Heavy Varmint
Aug. 15 — South Dakota State Heavy Varmint 200/300-yard Championship
Sep. 4 — Light Varmint
Sep. 5 — South Dakota State Heavy Varmint 100/200 yard Championship

ATCHINSON RIFLE CLUB, Cooperstown, North Dakota. Contact Richard Reiten, PO Box 589, Cooperstown, ND 58425 (701) 797-2668

COUNCIL BLUFF RIFLE AND PISTOL CLUB, Council Bluff, Iowa. Contact Bob Dodd, 7725 S. 39th Ave., Omaha, Nebraska 68147 (402) 733-6555

Aug. 7 — Heavy Varmint
Aug. 8 — Iowa State Sporter Championship
Sep. 18 — Iowa State Light Varmint Championship
Sep. 19 — Iowa State Heavy Varmint Championship
Oct. 16 — Light Varmint
Oct. 17 — Heavy Varmint

DAKOTA BENCHREST SHOOTERS CLUB, Sioux Falls, South Dakota. Contact Jack Backer, 1519 S. Euclid, Sioux Falls, SD 51205 (605) 338-4118

July 17 — Light Varmint
July 18 — Heavy Varmint
Sep. 11 — North Central Regional Light Varmint Championship
Sep. 12 — North Central Regional Heavy Varmint Championship

RIVER CITY RIFLE AND PISTOL CLUB, Mason City, Iowa, Contact Dean Kramer, 1042 Manor Dr., Mason City, IA 50401 (515) 423-6533

July 11 — Heavy Varmint

SOUTHWESTERN REGION

ARIZONA BENCHREST SHOOTERS, Phoenix, Arizona. Contact Nancy Miller, 7221 W. Angela, Peoria, Arizona 85345, (602) 979-5764.

Oct. 2 — Light Varmint
Oct. 3 — Heavy Varmint

CARSON RIFLE AND PISTOL CLUB, Carson City, Nevada. Contact Gordon Brownlee, 1309 Camille Dr., Carson City, Nevada 89701, (702) 883-1071

Aug. 29 — Hunter
Sep. 26 — Nevada State Hunter Championship

DESERT SPORTSMAN'S RIFLE AND PISTOL CLUB, Las Vegas, Nevada. Contact Betty Heimer, 26a74 Sorrel St., Las Vegas, Nevada 89102, (702) 873-2976.

SOUTHERN UTAH BENCHREST ASSOCIATION, St. George, Utah. Contact Jim Sommer, 1263 W. 750 N., St. George, Utah 84770, (801) 673-9562

Sep. 18 — Utah State Heavy Varmint Championship
Sep. 19 — Utah State Unlimited Championship and Heavy Varmint
Oct. 9 — Southwest Regional Heavy Varmint Championship
Oct. 10 — Southwest Regional Unlimited Championship and Heavy Varmint
Nov. 20 — Southwest Regional Sporter Championship
Nov. 21 — Southwest Regional Light Varmint Championship

VISALIA SPORTSMAN'S ASSOCIATION, Visalia, California. Contact Dennis Thornbury, 1114 S. McAuliff Road, Visalia, CA 93277 (209) 732-4401.

Sep.4 — California State Sporter Championship
Sep.5 — California State Light Varmint Championship
Sep. 6 — California State Heavy Varmint Championship. Bench rotation at this match.
Oct. 23 — Visalia Invitational, 5-shot clsses
Oct. 24 — Visalia Invitational, 5-shot classes

MISSISSIPPI VALLEY REGION

B & R GUN CLUB, Westfield, Indiana. Contact Bill Gwin, 2302 State Road 38 East, Westfield, Indiana 46074, (317) 877-3108.

Sep. 4 — Light Varmint
Sep. 5 — Heavy Varmint

BEESON'S RANGE, Etna Green, Indiana. Contact Jim Beeson, RR1, Etna Green, Indiana 46524, (219) 353-7964.

July 3 — Indiana State Light Varmint Championship
July 4 — Indiana State Heavy Varmint Championship
July 5 — Indiana State Sporter Championship

EGYPTIAN RIFLE AND PISTOL CLUB, Carbondale Illinois. Contact Marvin Voss, RR 1, Dedar Lane 15, Carbondale, Ill. 62901

Sep. 19— Heavy Varmint, 9 a.m.

ST. LOUIS BENCHREST RIFLE CLUB, St. Louis, Missouri. Contact Art Freund, 1038 Hornsby Ave., St. Louis, Missouri 63147, (314) 388-1352.

July 10 — Mississippi Valley Unlimited Championship, 1 p.m.
July 11 — Mississippi Valley Heavy Varmint Championship, 9 a.m.
Aug.14 — Five-shot Unlimited, 4:30 a.m.
Aug. 15 — Sporter, 9 a.m.
Sep.4 — Heavy Varmint, 4:30 p.m.
Sep.5 — Light Varmint, 9 a.m.
Oct. 16 — Sporter, 4:30 p.m.
Oct. 17 — Unlimited, 9 a.m.

SOUTHEASTERN REGION

No warm-up matches will be fired in Southeastern Region matches in 1982. The three-minute period rules has been adopted and will be in effect in all matches. Everyone is expected to be "on paper" before the first record match is fired.

BLACK CREEK GUN CLUB, INC., Harsville, South Carolina 29550

BRUNSWICK GUN CLUB, Lawrenceville, Virginia. Contact Dickie Delbridge, P.O. Box 315, Lawrenceville, Virginia 23868. (804) 577-2171.

Continued on Page 25

Tom Houghton Wins 3-Gun

Las Vegas
May 8-9

Tom Houghton and Harvey Miller won Nevada State Championships at the Desert Sportsman's Rifle and Pistol Club.

Houghton, Prescott, AZ, had a pair of second places to easily capture the state Heavy Varmint Championship. He was also the Three-Gun State Sporter Varmint champion, winning the State Light Varmint crown in February. He had a Three-Gun aggregate of .4193. Rick Adams, the Sporter winner and third in the Light Varmint in February and fourth in the Heavy Varmint race, was second in the Three-Gun with a .4405.

Harvey Miller, San Leandro, CA, won the Neveda State 10-shot Unlimited Championship. He was an easy winner at 100 yards and sixth at 200. Bill Fazio, La Habra, CA, was runnerup in the Grand and the winner at 200 yards.

Houghton fired a 22 PPC H. S. Precision barrel with a Hall action and Leupold 36X scope, along with 27.5 grains of H-322 with Berger 52-grain bullets in His Heavy Varmint victory.

Miller used a 22ST Hart barrel with a Weber action and Unertal 32X scope. He loaded 23 grains of H-322 with ROR 52-grain bullets.

Both matches were shot in winds gusting up to 40 miles an hour although sometimes "calming" down to only 20 miles an hour.

Heavy Varmint, 16 entries, 100 yards: 1 — Fazio, .4056; 2 — Houghton, .4090; 3 — Jim Peoble, .4152; 4 — Rick Adams, .4296. SG — Fazio, .197. 200 yards: 1 — Jack Allen, .7969; 2 — Houghton, .8192; 3 — Peoble, .8709; 4 — Glenn Price, .9154. SG — Lowell Frei, .863. Grand: 1 — Houghton, .6141; 2 — Peoble, .6431; 3 — Fazio, .6811; 4 — Adams, .6841.

Unlimited, 8 entries, 100 yards: 1 — Miller, .4124; 2 — Price, .5506; 3 — Betty Helmer, .5778. SG — Fazio, .308. 200 yards: 1 — Fazio, .7079; 2 — Irene Fazio, .7810; 3 — Peoble, .8409. SG — Fazio, .723. Grand: 1 — Miller, .6730; 2 — Bill Fazio, .6812; 3 — Irene Fazio, .6860.

Three-Gun Sporter/Varmint: 1 — Houghton, .4193; 2 — Adams, .4405; 3 — Peoble, .4790; 4 — Dennis Thornbury, .4809; 5 — Fazio, .4992; 6 — Leonard Quesada, .5052; 7 — Glenn Price, .5085; 8 — Donalee Price, .5162; 9 — Jack Allen, .5384; 10 — Miller, .5723.

Sherwood

George Bowerman and Gene Harwood each set a possible NBRSA record at the 100/200/300 yard Light Varmint match at Tri-County Gun Club at Sherwood, Oregon, May 15 and 16.

Bowerman, Longview, Washington, shot a possible 100/200/300 Grand with a .3836. He fired grand aggregates of .3422 in the 100-yard competition, a .4165 at 200 yards and .3923 at 300. He was fourth at 100 yards, fifth at 200 and the leader at 300. His 300-yard groups were 1.191, 1.051, 1.161, .900 and 1.582. He used a 6PPC Hart barrel with an XP-100 action and Leupold-Siebert 30X scope and loaded 28 grains of H-322 with Simonson 65-grain bullets.

Harwood, St. Helens, Oregon, set his possible with a .429 small group at 300 yards. He shot it in the warmup match, using a 6PPC McMillan barrel with a sleeved XP-100 action and Leupold 24X scope. He loaded 26 grains of 4198 with Simonson 60-grain bullets.

100 yards: 1 — Del Bishop, .3102; 2 — Andy Filfillan, .3174; 3 — Tom Novotney, .3376; 4 — Bowerman, .3422. 200 yards: 1 — Bishop, .3889; 2 — Fred Pearson, .3929; 3 — Jim Folwell, .3975; 4 — Harwood, .3988. 300 yards: 1— Bowerman, .3923; 2 — Harwood, .4765; 3 — Folwell, .5684; 4 — Gene Hahn, .5764. Grand: 1 — Bowerman, .3836; 2 — Harwood, .3988; 3 — Bishop, .4468; 4 — Gilfillan, .4592.

Visalia
March 20 - 21

Bill Ramsey and Jim Carlson were the winners in the Light Varmint and Heavy Varmint matches at the Visalia Sportsmans Rifle Range, sponsored by the California Bench Rest Shooters Association.

Ramsey, Merced, CA, was the Light Varmint winner, leading the field of 29 shooters in the 200-yard aggregate and finishing fifth at 100 yards. Dennis Thornbury, Visalia, CA, was second in the Grand with a strong 200-yard second-place finish after coming in ninth at 100 yards. Thornbury shot both small groups, a .152 at 100 yards and .342 at 200.

Ramsey fired a 6PPC Hart barrel with a Hall action and Leupold 36X scope, along with 27.5 grains of H-322 and Detsch 70-grain bullets.

Carlson used a pair of second place finishes to win the Heavy Varmint match. He had a .2793 Grand. Mel Iwatsubo was first at 100 yards and second in the Grand. Thornbury came in third in the Grand with a pair of third place finishes. Iwatsubo had the 100-yard small group, a .130. Stu Harvey shot a .305 for 200-yard small group.

Carlson fired a 6PPC McMillan barrel with a DGA action and Leupold 36X scope and loaded 27.2 grains of H-322 with Watson 68-grain bullets.

Light Varmint, 29 entries, 100 yards: 1- Bill Martz, .2684; 2- Larry Hahn, .2828; 3- Harvey, .2900; 4- Bill Mellor, .2918; 5- Ramsey, .2954. SG— Thornbury, .152. 200 yards: 1- Ramsey, .3183; 2- Thornbury, .3281; 3- Wayne Miller, .3929; 4- Irene Fazio, .4019; 5- Bill Fazio, .4047. SG— Thornbury, .342. Grand: 1- Ramsey, .3069; 2- Thornbury, .3365; 3- Harvey, .3492; 4- Mellor, .3524; 5- Hahn, .3804.

Heavy Varmint, 29 entries, 100 yards: 1- Iwatsubo, .2082; 2- Carlson, .2348; 3- Thornbury, .2560; 4- Ramsey, .2602; 5- Jim Langdon, .2840. SG— Iwatsubo, .130. 200 yards: 1- Irene Fazio, .2831; 2- Carlson, .3238; 3- Thornbury, .3558; 4- Harvey Miller, .3610; 5- Bill Stephens, .3638. SG— Harvey, .305. Grand: 1- Carlson, .2793; 2- Iwatsubo, .3043; 3- Thornbury, .3059; 4- Ramsey, .3243; 5- Spencer Zootis, .3372.

St. Louis
May 22

Bill Waldrop, St. Charles, MO, won the 100-yard Hunter match at the St. Louis Benchrest Rifle Club of St. Louis. He had a 248-2X and fired a .308 Remington with 40 grains of H-4895 and Sierra 168-grain bullets.

Jerry Goldstein, Creve Coeur, MO, was second with 246-10X and Wayne Corely, St. Charles, MO, third with 246-8X. Ed Mark, Baldwin, MO, was fourth with 246-7X. There were 14 shooters in the match.

CRAWFISH INVITATIONAL
Continued

Fisher, .3034. SG — Malsby, .259. Grand: 1 — Geraci, .2475; 2 — Fowler, .2491; 3 — Fisher, .2596; 4 — D. Hutcherson, .2755; 5 — Yeats, .2765; 6 — Callan, .2786; 7 — Hart, .2821; 8 — Scheltz, .2927; 9 — Heger, .2940; 10 — Moseley, .2978.

Two-Gun: 1 — Geraci, .2588; 2 — Fowler, .2735; 3 — D. Hutcherson, .2859; 4 — Langlinais, .2929; 5 — Hart, .2939; 6 — Callan, .2962; 7 — Heger, .2968; 8 — Fletcher Williams, .3058; 9 — King, .3104; 10 — Mills, .3115.

Morrison
May 17

Mike Pervich was first at 100 yards and second at 200 to win the Hunter match at the Colorado Bench Rest Shooters, Inc. There were seven shooters in the match which was shot under good conditions at 100 yards but heavy mirage at 200.

The match was the first of the season for the club which has lost its range this year. The match was shot under a temporary agreement allowing use of the range on day to day basis. The club will attempt to shoot other scheduled matches this season.

Pervich, Denver, CO, had a 246-11X in the 100 to take an early lead. Ron Best, Lakewood, CO, was the leader at 200 yards and second in the Grand.

Pervich shot a .308 Hart barrel with a Remington 700 action and loaded 39 grains of 4895 with Sierra 168-grain bullets.

100 yards: 1 — Pervich, 246-11X; 2 — Frank Bochy, 237-6X; 3 — Best, 237-5X. 200 yards: 1 — Best, 214-4X; 2 — Pervich, 212-3X; 3 — Bill Lofink, 180-2X. Grand: 1 — Pervich, 458-14X; 2 — Best, 451-7X; 3 — Lofink, 402-3X.

Holmwood
April 18

Marcy Lyons, Crowley, LA, with a first at 200 yards and third at 100 won the Hunter match at Southeast Louisiana Rifle and Pistol Club.

E. M. Baggett, Lake Charles, LA, was second in the Grand, finishing first at 100 yards and second at 200. Lyons had a Grand of 492-18X and Baggett had 491-25X. Lyons used a 6:250 Hart barrel with a Remington 700 action and loaded 34.3 grains of H-4895 with Watson 70-grain bullets.

There were 20 shooters in the match which was fired under generally good conditions.

100 yards: 1 — Baggett, 247-13X; 2 — Weldon Laviolette, 247-11X; 3 — Lyons, 247-8X; 4 — Carroll Green, 246-9X; 5 — Roger David, 246-8X; 6 — Louis Langlinais, 246-6X. 200 yards: 1 — Lyons, 245-10X; 2 — Baggett, 244-12X; 3 — Langlinais, 243-9X; 4 — Green, 243-8X; 5 — Laviolette, 233-10X; 6 — Francis Broussard, 233-7X. Grand: 1 — Lyons, 492-18X; 2 — Baggett, 491-25X; 3 — Green, 489-17X; 4 — Langlinais, 489-15X; 5 — Laviolette, 480-21X; 6 Broussard, 476-15X.

Possible Record For Marcy Lyons

Holmwood
May 16

Marcy Lyons, Crowley, LA, set a possible Hunter class record, his second possible record of the season, when he fired a 250-17X 100-yard aggregate at the Hunter match at Southwest Louisiana Rifle and Pistol Club.

Marcy used a .308 McMillan barrel with a Remington 700 action and loaded 39.2 grains of H-4895 with Hutcherson 168-grain bullets.

Naturally, Marcy finished first in the match, followed by E. M. Baggett, Lake Charles, LA, in second with a 249-12X and Weldon Laviolette, Lafayette, LA, third with 249-5X. James Neal, Lake Charles, LA, was fourth with 248-13X.

Knoxville
April 17-18

Don Geraci, Metaire, LA, was the Four-Gun winner in the Dogwood Invitational at the Volunteer Rifle and Pistol Club. The match this year was for 200 yards only.

Geraci was fourth in the Sporter, third in the Heavy Varmint, second in Light Varmint and third in the Unlimited classes.

Ed Watson, Greenville, SC, was the winner in the Sporter class with a .3765 aggregate. Larry Earp, Charlotte, NC, was second and Bill Forrester, Louisville, KY, third. Watson used a 6PPC McMillan barrel with a sleeved XP-100 action and Lyman-Siebert 30X scope. He loaded 25.5 grains of H-4198 with his own 62.5 grain bullets.

Charles Baughman, Atlanta, GA, won the Heavy Varmint match, using a 6PPC McMillan barrel with a 40X action and Leupold 36X scope, along with 28 grains of H-322 and his own 67-grain bullets. Dave Tooley, Brevard, NC, was second and Geraci, third. Nick Young, Knoxville, TN, was fourth.

It was Young in the Light Varmint class, firing a fine .2645 in his victory. Geraci was second in this event, followed by Forrester, George Javo and James Coffey. Young used a 22PPC Sherer barrel and sleeved XP-100 action and Leupold 36X scope. He loaded 29.8 grains of H-335 and his own 50.5-grain bullets.

Forrester led the pack in the Unlimited, shooting a .3967 aggregate. He used a 6PPC Hart barrel, XP-100 action and Leupold 36X scope. He loaded 25.5 grains of 4198 and Simonson 62.5-grain bullets. Bill Hall was second and Geraci, third.

Heavy Varmint: 1 — Baughman, .2764; 2 — Tooley, .2889; 3 — Geraci, .2956; 4 — Young, .2979; 5 — Watson, .3089. SG — Young, .277.

Light Varmint: 1 — Young, .2645; 2 — Geraci, .2803; 3 — Forrester, .3326; 4 — Javo, .3548; 5 — Coffey, .3623. SG — Heywood Propes, .285.

Unlimited: 1 — Forrester, .3967; 2 — Hall, .4170; 3 — Geraci, .4436; 4 — Javo, .5130; 5 — Orlin Gilkerson, .5176. SG — Hall, .540.

Sporter: 1 — Watson, .3765; 2 — Larry Earp, .4141; 3 — Forrester, .4197; 4 — Geraci, .4286; 5 — Ken Jarrett, .4373. SG — Young, .407.

Issaquah
May 1-2

Roy Norman and Joe Mendham had one of those one in a million situations come up. Shooting in a five-shot Unlimited match, they ended up tied for the Grand, each with a .4414 aggregate.

Going back to the first match of the day, in this case the warmup, Norman won the match with a .172 group for a .580 for Mendham. Mendham, Vancouver, B.C., was second at 100 yards while Norman, Kennewick, WA, was the 200-yard winner.

Norman used a 22PPC Hart barrel with a Weber action and Unertal 24X scope. He loaded 27 grains of H-322 with his own 53-grain bullets. bill Crosby was the 100 yard winner.

In the 10-shot Unlimited match the next day there was no problem in deciding the winner. Manley Oakley, Seattle, WA, had a comfortable lead over runnerup Allen Bench. Alex Bulman, Delta, B.C., was the 100-yard leader and Mendham, the 200-yard winner.

Manley used a .222 Hart barrel with Hart action and Unertal 24X scope, along with 24 grains of BL(C)-1 and B&A bullets.

Five-shot Unlimited, 12 entries, 100 yards: 1 — Crosby, .2948; 2 — Mendham, .3418; 3 — Bruce Stallard, .3502. SG — Bench, .199. 200 yards: 1 — Norman, .4842; 2 — Oakley, .5171; 3 — Jim Lott, .5231. SG — Lowell Boyd, .583. Grand: 1 — Norman, .4414; 2 — Mendham, .4414; 3 — Stallard, .4432.

10-shot Unlimited, 12 entries, 100 yards: 1 — Bulman, .3450; 2 — Oakley, .3552; 3 — Crosby, .3676. SG — Bench, .206. 200 yards: 1 — Mendham, .4649; 2 — Gene Harwood, .4792; 3 — Bench, .4822. SG — Mendham, .592. Grand: 1 — Oakley, .4260; 2 — Bench, .4320; 3 — Crosby, .4373.

WALT BERGER, DONALEE PRICE WIN UTAH STATE CHAMPIONSHIPS

St. George
April 24-25

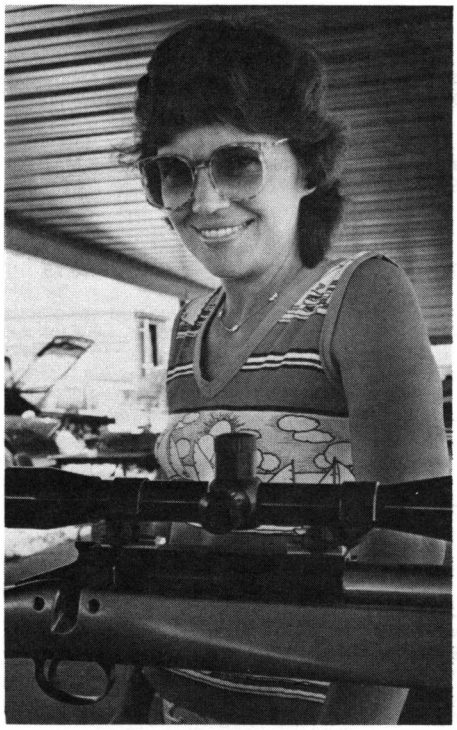
Do good at 200 and you can pick up a lot of ground.

Donalee Price did just that in winning the Utah State Sporter Championship at the Southern Utah Bench Rest Association.

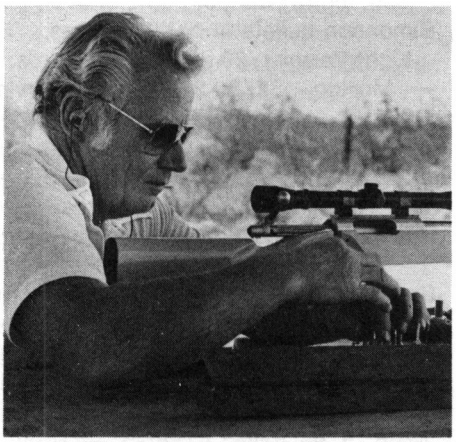
She was 13th at 100 yards but came back in the afternoon to win the 200 yard competition with a .4232 in gusty switching winds. She got a little help from the rest of the competitors as most of the leaders at 100 yards didn't do too well at 200 and the 200 yard leaders hadn't done very well at 200.

Donalee, Torrance, CA, fired a 6PPC Hart barrel with an XP-100 action and Leupold 36X scope, along with 27.5 grains of H-322 and Bruno 69-grain bullets.

Walt Berger used a fine 200-yard victory to capture the Utah State Light Varmint Championship. He was fifth at 100 yards and came back with a .3695 aggregate at 200 to take the title. Bob Bulloch, St. George, UT, was the winner at 100 yards and second in the Grand. Berger, Phoenix, AZ, used a 6PPC McMillan barrel with a Stolle action and Lyman-Siebert 30X scope, along with 24.8 grains of 4198 and his own 75-grain bullets.



DONALEE PRICE



WALT BERGER

Two new shooters, Don Hase, Sandy, UT, and Lee Large, Covina, CA, did well in their first competition. Hase was the 100-yard leader in the Sporter and sixth in the Grand, and Large finished third at 200 in the Sporter and fourth in the Grand.

Sporter, 31 entries, 100 yards: 1 — Hase, .2706; 2 — Lowell Frei, .2714; 3 — Bulloch, .2776; 4 — Jim Peoble, .2992; 5 — Ralph Landon, .3034. SG — Betty Helmer, .129. 200 yards: 1 — Price, .4232; 2 — Milet Helmer, .4632; 3 — Large, .4851; 4 — Glenn Price, .4948; 5 — Rick Adams, .5012. SG — Donalee Price, .463. Grand: 1 — Price, .3890; 2 — Adams, .4044; 3 — Bulloch, .4175; 4 — Large, .4182; 5 — Hase, .6052.

Light Varmint, 31 entries, 100 yards: 1 — Bulloch, .2660; 2 — Dick Cundiff, .2728; 3 — Jack Robinson, .2810; 4 — Dick Howard, .2908; 5 — Berger, .3046. SG — Berger, .165. 200 yards: 1 — Berger, .3695; 2 — Jim Sommer, .3841; 3 — Bulloch, .4187; 4 — Robinson, .4199; 5 — Bob Wirthlin, .4387. SG — Jack Allen, .385. Grand: 1 — Berger, .3370; 2 — Bulloch, .3423; 3 — Robinson, .3504; 4 — Cundiff, .3664; 5 — Wirthlin, .3838.

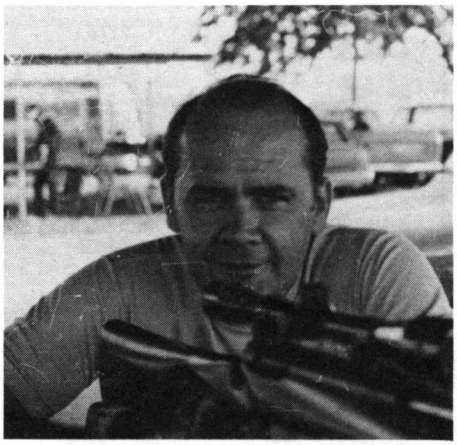
Augusta
May 15-16

The Heavy Varmint and Unlimited matches at Reed's Run Rifle Range developed into a pair of real close battles.

In the Heavy Varmint, it was Howard Lindsey, W. Huntington, PA, winning but with Stan Buchtel, Akron, OH, finishing just .0023 behind. Buchtel was the leader at 100 yards and Lindsey the leader at 200. Lindsey used a 6PPC McMillan barrel with a Hart action. He loaded 29 grains of 4895 with Remington bullets.

Joe Lockhart and Jon Murdock had a similar battle with Lockhart coming out on top by the narrow margin of .0030. Lockhart was the winner at 100 yards with Murdock second. Murdock won at 200 with Lockhart finishing third. Lockhart fired a .308 Hart barrel with a Unertal 30X scope, along with 42 grains of 4895 and Pindell 158-grain bullets.

Heavy Varmint, 31 entries, 100 yards: 1 — Buchtel, .2718; 2 — Pete Rechnitzer, .2850; 3 — Charles Delessandro, .2872; 4 — Gary Conway, .3120; 5 — Ron Keim, .3306. SG — Wayne Utchell, .176. 200 yards: 1 — Lindsey, .3185; 2 — George Suess, .3704; 3 — Jim Wakely, .3709; 4 — Keim, .3963; 5 — Buchtel, .4139. SG — Dalessandro, .301. Grand: 1 — Lindsey, .3401; 2 — Buchtel, .3428; 3 — Wakely, .3508; 4 — Keim, .3634; 5 — Rechnitzer, .3646.



READY FOR NATIONALS

Unlimited, 17 entries, 100 yards: 1 — Lockhart; 2 — Murdock; 3 — Keim; 4 — Suess. SG — Keim, 204. 200 yards: 1 — Murdock; 2 — Keim, 3 — Lockhart; 4 — Wayne Utchell. SG — Keim, 421. Grand: 1 — Lockhart, .3419; 2 — Murdock, .3449; 3 — Keim, 3861; 4 — Utchell, .4340.

NBRSA World Records — As of Jan. 1, 1982

SINGLE GROUPS	Bench Rest Rifle	Heavy Varmint	Light Varmint	Sporter
5-10	.063″ Hap Zeizer 8/30/58	.027″ Ralph Landon 9/13/75	.009″ Mac McMillan 9/23/73	.041″ Jerry Thornbrugh 10/21/78
5-200	.161″ David Pickens 7/15/67	.108″ Earl Case 9/5/76	.109″ Stu Harvey 7/10/76	.110″ Tom Minder 7/4/81
5-300	.373″ Art Freund 7/11/81	.339″ Ed Watson 7/1/78	.490″ Nick Young 5/3/80	.548″ Charles Scott 6/10/78
10-100	.138″″ Ferris Pindell 8/27/69	— — —	— — —	— — —
10-200	.298″ Melvin Miller 7/20/68	— — —	— — —	— — —
10-300	.673″ Nick Young 6/24/79	— — —	— — —	— — —
AGGREGATES				
5-5-100	.1649 L. E. Wilson 5/12/81	.1629 Harvey Miller 9/4/78	.1977 Larry Earp 10/11/80	.1773 Jef Fowler 7/28/80
5-5-200	.2290 L. Engelbrecht 11/4/67	.1953 Larry Kuse 10/10/81	.2207 Walt Berger 6/25/77	.2147 Bill Webb 10/11/80
5-5-300	.2251 Art Freund 7/11/81	.3728 Bill Forrester 6/7/80	.3106 Earl Balmer 6/9/79	.2773 Lester Bruno 7/5/81
5-10-100	.2175 Art Freund 6/4/78	— — —	— — —	— — —
5-10-200	.2322 Don Geraci 9/5/81	— — —	— — —	— — —
5-10-300	.4248 Herb Stark 5/31/70	— — —	— — —	— — —
GRAND AGGREGATES				
5-5 (100 + 200)	.2275 Bud Carden 11/4/67	.2060 Marvin Whiles 9/8/79	.2414 Walt Berger 6/25/77	.2239 Ed Watson 9/1/79
5-5 (200 + 300)	.2578 Art Freund 7/11/81	.4089 Bill Forrester 6/7/80	.3409 Gene Harwood 6/14/80	.3357 Ed Watson 5/4/80
5-10 (100 + 200)	.2563 Al Roberts 8/11/62	— — —	— — —	— — —
5-10 (200 + 300)	.4419 Herb Stark 5/31/70	— — —	— — —	— — —

HUNTER

100 yards	200 yards	Grand Aggregate
250-15X Francis Broussard 7/10/77	248-12X Wayne Corley 6/21/81	495-24X Wayne Corley 6/21/81
Marcy Lyons 10/1/78		

Ten shot groups or aggregates are no longer contested in any of the Varmint or Sporter classes.

This data provided by J. C. Malsby, Chairman, NBRSA Measuring Committee.

New Braunfels
April 18

Ray Jageman, Houston, TX, won the 200-yard Hunter match at Central Texas Bench Rest Shooters Association match at the Dietz Range.

Jageman fired a 7MM08 Remington barrel with a Remington 700 action and loaded 33.2 grains of 4895 with Sierra 150-grain bullets. Mike Harte was second with a 238-10X; Frank Wilson, third with 237-11X. Tom Gonzalez was fourth with 236-10X and James Tschoepe, fifth, with 236-9X.

Etna Green
May 1-2

Perry Morton had a sweep in the Light Varmint and Heavy Varmint matches held over the weekend at Beeson's Rifle Range.

He won both matches, taking the Light Varmint match with a first place at 100 yards and second at 200. Fred Hasecuster, Shelbyville, IN, was the 200 yard leader and second in the Grand. Morton, Warsaw, IN, was first at 200 yards in the Heavy Varmint. Fred Sinclair, New Haven, IN, was second in the Grand, finishing second at 200 yards and fourth at 100.

Morton fired a 6PPC Sherer barrel with a Stolle action and Lyman-Siebert 36X scope, along with 26 grains of 4198 and Simonson bullets in both matches.

Light Varmint, 26 entries, 100 yards: 1 — Morton, .3278; 2 — Wesley Irvin, .3332; 3 — Dave Reigel, .3484; 4 — Harry Hoppe, .3526; 5 — Hasecuster, .3640; 6 — Arne Carlsen, .3654. SG — T. Y. Hamilton, .239. 200 yards: 1 — Hasecuster, .4201; 2 — Morton, .4468; 3 — Dale Dillingham, .5071; 4 — Harry Brown, .5382; 5 — Bob Strawhorn, .5519; 6 — Hamilton, .5617. SG — Leonard Nanzer, .519. Grand: 1 — Morton, .3873; 2 — Hasecuster, .3921; 3 — Strawhorn, .4711; 4 — Sinclair, .4746; 5 — Irvin, .4778; 6 — Brown, .4930.

Heavy Varmint, 30 entries, 100 yards: 1 — Hoppe, .2590; 2 — H. J. Fedorowich, .2894; 3 — Reigel, .2920; 4 — Sinclair, .3048; 5 — Walter Valch, .3070; 6 — Jim Burdette, .3132. SG — Balch, .152. 200 yards: 1 — Morton, .3998; 2 — Sinclair, .4242; 3 — Kim Brown, .4354; 4 — Harry Brown, .4882; 5 — Riegel, .5118; 6 — Strawhorn, .5180. SG — Stephen Farner, .446. Grand: 1 — Morton, .3570; 2 — Sinclair, .3645; 3 — Kim Brown, .3989; 4 — Burdette, .4017; 5 — Reigel, .4019; 6 — Balch, .4139.

Desota
May 1-2

Marvin Whiles and Bill Prock were the winners in the 10½-pound and Heavy Varmint matches at the Mill Creek Rifle Club's match at the Bruce Hodgdon Range.

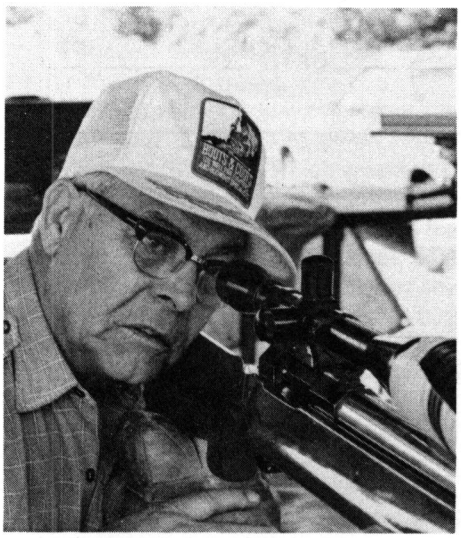
Whiles, Shawnee, KS, captured the Heavy Varmint match, finishing first at both 100 and 200 yards for a fine .2384 Grand. Don Creach, Kansas City, MO, was second at 100 and third at 200 for second place in the Grand. Whiles used a .222 Hart barrel with an XP-100 action and Lyman-Siebert 32X scope. He loaded 25.1 grains of H-335 with Engelbrecht 52.5-grain bullets.

Prock, Kansas City, MO, was second in the 200 in winning the 10½-pound match. Doc Beam, Tulsa, OK, was the winner at 100 yards and third in the Grand. Creach led the pack at 200 and was second in the Grand. Prock fired a 6X47 Hart barrel with a DGA action and Leupold 30X scope, loading 27.5 grains of H-322.

The Heavy Varmint evening match was fired under very good conditions, but the following day's conditions were, at best, poor.

10½-pound, 20 entries, 100 yards: 1 — Beam, .2850; 2 — Jim Young, .2932; 3 — Bob Dodd, .3002. SG — Beam, .155. 200 yards: 1 — Creach, .3108; 2 — Prock, .3445; 3 — Beam, .4454. SG — Creach, .364. Grand: 1 — Prock, .3299; 2 — Creach, .3507; 3 — Beam, .3562; 4 — Dodd, .3742.

Heavy Varmint, 26 entries, 100 yards: 1 — Whiles, .2470; 2 — Creach, .2714; 3 — Bob Morris, .2764; 4 — Dennis Wagner, .2826; 5 — Engelbrecht, .2882. SG — Whiles, .123. 200 yards: 1 — Whiles, .2298; 2 — Engelbrecht, .2502; 3 — Creach, .2620; 4 — Prock, .2944; 5 — Dave Davids, .2966. SG — Engelbrecht, .273. Grand: 1 — Whiles, .2384; 2 — Creach, .2667; 3 — Engelbrecht, .2691; 4 — Morris, .2888; 5 — Prock, .3023.



BOB FISHER

NBRSA MATCH SCHEDULE

Continued

BUCCANEER GUN CLUB, Wilmington, North Carolina. Contact Don Sloop, 306 Bragg St., Wilmington, NC 28403. (919) 799-4627.

Oct. 23 — Buccaneer Invitational, 100 yard Light Varmint and Heavy Varmint

Oct. 24 — Buccaneer Invitational, 100 yard Sporter

CHARLOTTE RIFLE AND PISTOL CLUB, Charlotte, North Carolina. Contact Jack Nuyen, 3329 Denson Dr., Charlotte, NC 28215. (704) 537-5072.

FAYETTE COUNTY GUN CLUB, INC., Fayette, Alabama. Contact Charles Lahay, 131 14th Court, Fayette, AL 35555. (205) 932-3684.

Nov. 13 — Alabama State Light Varmint and Heavy Varmint Championships, 200 yards

Nov. 14 — Alabama State Light Varmint and Heavy Varmint Championships, 100 yards

GALLATIN GUN CLUB, Gallatin, Tennessee. Contact Frank Allison, Rt. 6, Earhart Rd., Mt. Juliet, Tennessee 37122, (615) 883-0163

Sep. 18 — Southeastern Regional Heavy Varmint and Unlimited Championships, 100 yards

Sep. 19 — Southeastern Regional Heavy Varmint and Unlimited Championships, 200 yards

GEORGIA BENCHREST SHOOTERS, Athens, Georgia. Contact O. M. Dodgen, 150 Bishop Dr., Athens, GA 30606. (404) 546-6810.

GREENVILLE GUN CLUB, INC., Greenville, South Carolina. Contact Ed Watson, 2404 Wade Hampton Blvd., Greenville, SC 29615. (803) 244-7948

Oct. 9 — South Carolina State Light Varmint and Heavy Varmint Championships, 100 yards

Oct. 10 — South Carolina State Sporter and Unlimited Championships, 100 yards

IZAAK WALTON BENCHREST CLUB, Midlothian, Virginia. Contact Dennis Glazener, 300 Manakin Road, Midlothian, VA 23113

JACKSON COUNTY SHOOTING CLUB, Sylva, North Carolina. Contact James Messer, Box 2, Webster, NC 28788. (704) 586-5921

Jul. 17 — North Carolina State Light Varmint and Heavy Varmint Championships, 100 yards

Jul. 18 — North Carolina State Sporter and Unlimited Championships, 100 yards

Aug. 14 — Twi-Night Shoot, Light Varmint and Heavy Varmint, 100 yards, 4 p.m.

KETTLEFOOT ROD AND GUN CLUB, Bristol, Tennessee. Contact Claude Smith, 2325 Westfield, Bristol, VA 24201 (703) 669-6594

Aug. 21 — Tennessee Light Varmint and Heavy Varmint Championships, 100 yards

Aug. 22 — Tennessee Light Varmint and Heavy Varmint Championships, 200 yards

MAGIC CITY RIFLE AND PISTOL CLUB, Birmingham, Alabama. Contact Earl Case, 8 Ransom Road, Alton, AL 35015 (205) 833-7552.

MEMPHIS RIFLE AND REVOLVER ASSOCIATION, INC., Memphis, Tennessee. Contact George Busby, 3887 St. Elmo, Memphis, TN 38138 (901) 372-1728

MID-CAROLINA RIFLE CLUB, Columbia, South Carolina. Contact E. G. Bumgardner Jr., 1740 Windover Road, Columbia, SC 29204, (803) 786-0571

PALMETTO GUN CLUB, Goose Creek, South Carolina. Contact Tom McMillan, 5899 Mercia Lane, Charleston Heights, SC 29406

PEE DEE BENCHREST SHOOTERS, Timmonsville, South Carolina. Contact James Hancock III, 200 Downs Dr., Timmonsville, SC 29161 (803) 346-3397

PIEDMONT RIFLE AND PISTOL ASSOCIATION, Yadkinville, North Carolina. Contact Ed Hartman, P.O. Box 1088, Yadkinville, NC 27055. (919) 961-6676

ROANOKE RIFLE AND REVOLVER CLUB, Roanoke, Virginia. Contact Ted Manning, 4533 Thirlane Road, Roanoke, VA 24019 (703) 362-8046

SPORTSMAN'S CLUB, INC., Dothan, Alabama. Contact Edward Sabo, Box 1724, Dothan, AL 36301 (205) 792-3505

TWIN CITY RIFLE AND PISTOL CLUB, Roanoke Rapids, North Carolina. Contact John Reber, 236 Old Farm Road, Roanoke Rapids, NC 27870

VOLUNTEER RIFLE AND PISTOL CLUB, Knoxville, Tennessee. Contact Nick Young, 2817 Magnolia Ave., Knoxville, TN 37914 (615) 966-7680

July 26 — NBRSA Unlimited National Championship, 100 yards

July 27 — NBRSA Unlimited National Championship, 200 yards

July 28 — NBRSA Sporter National Championship, 100 and 200 yards

July 29 — NBRSA Light Varmint National Championship, 100 and 200 yards

July 30 — NBRSA Heavy Varmint National Championship, 100 yards

July 31 — NBRSA Heavy Varmint National Championship, 200 yards

WATAUGA GUN CLUB, Boone, North Carolina. Contact James Coffey, Rt. 4, Box 400, Boone, NC 28607, (704) 264-8184

July 3 — Southeastern Regional Heavy Varmint Championships, 200 and 300 yards

July 4 — Southeastern Regional Heavy Varmint Championship, 100 yards

Sep. 4 — Southeastern Regional Light Varmint and Sporter Championships, 300 yards

Sep. 5 — Southeastern Regional Light Varmint and Sporter Championships, 200 yards

Sep. 6 — Southeastern Regional Light Varmint and Sporter Championships, 100 yards

WYOMING ANTELOPE CLUB, Clearwater, Florida. Contact John Jessip, 5180 113th Ave., Clearwater, FL 33520 (813) 576-6675 (office)

Nov. 27 — Florida State Light Varmint and Heavy Varmint Championships, 200 yards

Nov. 28 — Florida State Light Varmint and Heavy Varmint Championships, 100 yards

Southeastern Region Annual meeting, Saturday, December 4, 1982. Holiday Inn #3, 275 Smoky Park Highway, Ashville, NC 28806 (704) 667-4501. Time 1 p.m.

EASTERN REGION

CHIPPEWA RIFLE CLUB, Easton, Ohio. Contact Stan Buchtel, 5735 Sherwood Forest Dr., Akron, OH 44319. (216) 882-6877

Sep. 25 — Ohio State Unlimited and Heavy Varmint Championships.

Sep. 26 — Ohio State Unlimited and Heavy Varmint Championships.

CHIPPEWA COUNTY SHOOTING ASSOCIATION, Sault Ste. Marie, Michigan. Contact Joseph Haller, Rt. 1, Box 117, Nicolet Road, Sault Ste. Marie, Michigan 49783

July 11 — Ken Martell Memorial Shoot, Light Varmint and Heavy Varmint, 100 yards

Aug. 28 — Michigan State Light Varmint and Heavy Varmint Championships, 100 yards

Aug. 29 — Michigan State Light Varmint and Heavy Varmint Championships, 200 yards

KELBLY'S RIFLE RANGE, Marshallville, Ohio. Contact George Kelbly, 7222 Dalton Fox Lake Road, North Lawrence, Ohio 44666. (216) 683-4674

July 3 — Eastern Regional Unlimited, 10½-pound and Heavy Varmint Championships

July 4 — Eastern Regional Unlimited, 10½-pound and Heavy Varmint Championships

July 5 — Eastern Regional Unlimited, 10½-pound and Heavy Varmint Championships

REED'S RUN RIFLE RANGE, Augusta, Ohio. Contact Marie Brown, Box 66 Augusta, Ohio 44607

July 17 — Unlimited and Heavy Varmint

July 18 — Unlimited and Heavy Varmint

Sep. 11 — Thirtieth Anniversary Shoot, Unlimited and Heavy Varmint

Sep. 12 — Thirtieth Anniversary Shoot, Unlimited and Heavy Varmint

FAIRFIELD SPORTSMAN'S CLUB, Fairfield, Ohio. Contact Orlin Gilkerson, 4624 River Road, Fairfield, Ohio 45014

Oct. 9 — Unlimited

Oct. 10 — Heavy Varmint

KANE FISH AND GAME CLUB, Kane, Pennsylvania. Contact Dick Lockwood, Box 112, Kane, Pennsylvania 16735, (814) 837-6216

SHELBY COUNTY SPORTSMAN'S ASSOCIATION. Contact Phil Jones, 414 Summit Ave., Troy, Ohio 45373

Oct. 23 — Sporter and Heavy Varmint

Oct. 24 — Sporter and Heavy Varmint

PROGRAM

1982 NBRSA HUNTER RIFLE CHAMPIONSHIP

St. Louis Benchrest Club
Bridgeton, Missouri
September 11, 12, 1982

SEPTEMBER 11: One warmup match and five record matches at 100 yards.

SEPTEMBER 12: One warmup match and five record matches at 200 yards.

CHAMPIONSHIP AGGREGATES: The total of five record matches at 100 yards will determine the 100 yard NBRSA National Champion and the total of five record matches at 200 yards will determine the 200 yard NBRSA National Champion. The total of the 100 yard and 200 yard record matches will determine the grand aggregate NBRSA National Champion.

RULES: Current NBRSA rules on Hunter Rifle competition will be in force. All competitors must be members of the NBRSA.

FEES: $24.00 for two day competition.

TROPHIES AND AWARDS: National Championship Trophy. Trophies will be awarded for the first five places for each range aggregate and the first ten places in the grand aggregate; most Xs at 100 yards, 200 yards and grand aggregate; and junior trophy. Top Twenty patches awarded to the twenty leading competitors in the grand aggregate. Lariat ties for match winners. National Championship patches awarded to the 100 yard, 200 yard and grand aggregate winners.

ACCOMMODATIONS: Regal 8 Inn (314) 291-6100, Red Roof Inn (800) 848-7878, Holiday Inn West (800) 325-1395. Motels are located at the intersection of Hy. 270 and St. Charles Rock Rds.

FACILITIES: Eighteen covered benches with covered loading area. Limited electrical outlets and water for campers.

RANGE LOCATION

Follow St. Charles Rock Rds. west for 2.9 miles, turn right at bridge for 1.2 miles then turn left at railroad tressel. The range will be open on Sept. 10 from 9 AM to 4 PM.

OFFICIAL PREREGISTRATION FORM NBRSA HUNTER RIFLE NATIONALS ST. LOUIS BENCHREST CLUB

BRIDGETON, MISSOURI
SEPTEMBER 11, 12, 1982

ENTRY FEE: $24.00

Send entries and checks to:

Richard Griffin
2 Country Farm Blvd.
St. Peters, Mo. 63376
(314) 278-2586

Make checks payable to:

St. Louis Benchrest Club

You are required to be an NBRSA member to participate.

Preregistration is required at least 30 days prior to match. $10.00 penalty for late registration. Total refund if not present.

I do hereby release the St. Louis Benchrest Club and the NBRSA, Inc. along with their officials from any and all claims for liability and damage that may or might be sustained by virtue of my participation in this rifle match conducted by the above organizations.

SIGNATURE _____ DATE _____

NAME (please print or type) _____

STREET _____

CITY _____ STATE _____ ZIP _____

EQUIPMENT DATA

CALIBER ____ ACTION ____ SCOPE ____ POWDER ____

BARREL MAKER ____ LENGTH ____ DIAMETER ____ TWIST ____

GUNSMITH ____ STOCKER ____ WEIGHT ____

CASE ____ LOAD ____ BULLET MAKER ____ PRIMER ____

A Metal Treatment For Gun barrels

Continued from Page 7

Another string was fired on 3-25-82 in 70° weather. The results follow:

530-2907 ft/sec
524-2941 ft/sec
525-2933 ft/sec
525-2933 ft/sec
521-2967 ft/sec
Average velocity = 2936.4 ft/sec
Variation in velocity = 60 ft/sec
% Variation = 2.04%

Both strings were higher than I expected; however, the barrel was 27-½″ long. The results of the two strings were what one would expect.

Next, the barrel was removed and taken to Oak Ridge to be treated. This was done and test firing completed on April 12, 1982.

520-2976 ft/sec
521-2967 ft/sec
516-2994 ft/sec
516-2994 ft/sec
520-2976 ft/sec
Average velocity = 2981.4 ft/sec
Variation in velocity = 27 ft/sec
% Variation = 0.91%

The last string fired gave the following results:

517-2985 ft/sec
517-2985 ft/sec
516-2994 ft/sec
520-2976 ft/sec
517-2985 ft/sec
Average velocity = 2985 ft/sec
Variation in velocity = 18 ft/sec
% Variation = 0.60%

The results did not have the increase in velocity that I had expected; however, the variation improvement was much better than I anticipated.

The increase in speed was an average 44.5 ft/sec or 1.51%. The difference in variation was 33 ft/sec, which was a gain in uniformity of 55.39%.

The added data seems to support the idea that Pyro-Dux treatment does help to improve accuracy. The fact that the gun is still shooting well after 5,000 rounds would lead one to think that barrel life will be improved.

The data is an extremely small sample; however, I believe it warrants additional work.

As more testing is needed, all inquiries are welcomed and should be directed to: Ed Pennebaker, Post Office Box 1386, Greenville, SC, 29602, (803) 235-8016.

IZAAK WALTON LEAGUE, York, PA.
****
IBS REGISTERED HUNTER
APRIL 18,1982

MASTER	SCORE	CAL.	SCOPE	LOAD	BULLET	PR.
1. G. Schuckers	249-7x	6PPC	Weaver 6x	29-N201	Olewine 70	Fed.
2. R. Gower	248-12x	6MM	Weaver 6x	- -	Olewine 70	Fed.
3. C. Loebsack	247-14x	6PPC	Weaver 6x	25-4198	Lilly 68	Fed.
4. W. Wagman	247-11x	308	Weaver 6x	40- H4895	Sierra 168	Fed.
5. G. Green	247-8	308	Pecar 6x	38.5 H4895	Sierra 168	Alc.
HUNTER						
1. R. Antonelli	244-6x	308	Weaver 6x	43- 4320	Custom -	CCI
2. B. Druck	243-6x	6BR	Lyman 6x	28.8 N201	Detsch -	Rem.
3. Agnes Sabo	243-4x	308	Lyman 6x	41- H4895	Own 168	Fed.
4. W. Theis	243-4x	6PPC	Lyman 6x	27.4 H322	Custom 70	Fed.
5. P. Olewine	243-3x	6BR	Leup. Var.	27.8 H322	Custom 65	Rem.
MARKSMAN						
1. R. Linn	234-3x	308	Lyman 6x	39- 3031	Sierra 168	Fed.
2. D. Elston	229-1x	7MM/08	Redfield 6x	43- H4831	Sierra 150	Rem.

26 - Competitors Windy conditions.

R.A. Linn, Secty.

SOUTH CREEK ROD AND GUN CLUB
****
UNREG. H.V.
MARCH 28,1982

1. Tim LeBaron..... .3682
2. Vince Pastorella..... .4396
3. Jeff Stover..... .4640
4. Carl Lynn..... .4936
5. Stan Starzinski..... .4992

There were 26 shooters at this match. We seem to pick all the windy days and this was no exception. Ed Starzinski had small group- .165

FINAL SEASON STANDINGS
(BEST 5 OF 8 MATCHES)

1. Tim LeBaron..... .3638
2. Bob DeMonstoy..... .3933
3. Vince Pastorella..... .4478
4. Jack Deming..... .4890
5. Jeanne Lynn..... .4993
6. Carl Lynn..... .4996
7. Paul Olewine..... .5060
8. Tony Margelewicz..... .5096
9. Jim Borden..... .5199
10. George Stickler..... .5247

Tim LeBaron outdid his grandfather Bob DeMonstoy by a small margin but grampa seemed as happy about it as Tim. On January 31st Tim shot a .2104 for the smallest agg ever shot at the South Creek winter matches.

George Stickler

INTERNATIONAL BENCHREST SHOOTERS APPLICATION

Name .....

Address .....

City ..... State ..... Zip .....

IBS MEMBERSHIP

( ) IBS membership and PS for one year — $15.00

( ) Associate member (no magazine) other members of same house hold — $4.00

( ) Junior member (no magazine) under age 16 — $2.00

( ) Club Affiliation and PS for one year — $15.00

( ) New ( ) Renewal

MAIL MEMBERSHIP TO:
EVELYN RICHARDS
411 N. Wilbur Ave., Sayre, Pa. 18840

For membership make checks payable to IBS.

PRECISION SHOOTING SUBSCRIPTION

( ) Precision Shooting, one year — $12.50

( ) Precision Shooting, two years — $20.00

( ) Precision Shooting, outside U.S. & Canada — $12.00 plus $30.00 Air Mail ($42.00) each year

SUBSCRIPTION CHECKS NOT DRAWN ON AN AMERICAN BANK WILL BE RETURNED.

( ) New ( ) Renewal

MAIL PRECISION SHOOTING MAGAZINE SUBSCRIPTION TO:
PRECISION SHOOTING
133 State St., Augusta, Maine 04330

For subscription ONLY make checks payable to Precision Shooting.

TRADING POST

One man's "Junk" is another man's "Collector's Item!" Turn your surplus items into cash with a Trading Post ad.

Groups of figures, abbreviations and initials count as words. Hyphenated word counts as two words. Name and address of advertiser is counted. Use full words instead of initials and abbreviations and make your meaning entirely clear.

Classified type ads: no display. **Rates:** 15 cents per word per insertion, prepaid. Minimum charge is $1.50. Closing date for ads is the last Saturday of the month preceding publication.

REBLUEING, ANTIQUE RESTORATION, AND REPAIRS. (Specializing in Winchesters). Harry Hoffman/Gunsmith, RD 4, Box 438, Quarryville, PA 17566.

WANTED: Remington Long Bolt, unaltered Remington 600 and 660 rifles, 222, 223, 6mm, 35 Rem and Magnums. Also stocks, barrels and miscellaneous parts for same. Jim Moravek, 2009 Box Butte, Alliance, NE 69301. Phone 308-762-4462.

FOR SALE: 222 switch weight; 222 Mag. Hunter class; 6PPC Sporter. All three guns built by Sinclair. Approximately 100 rounds fired through each. $650.00 each, tools included. Archie Jacobs, 50 Laurel Court, Martinsburg, W. VA. 25401. 304-263-2645.

WANTED: Motor and pulley setup for movable backers for Bench Rest Shooting. Send detail description, electrical requirements, sketch of setup and price. Southwest Louisiana Rifle and Pistol, c/o James Neal, 1203 California, Lake Charles, LA. 70605. 318-477-6440.

WANTED: *Precision Shooting* magazines, Jan 57, all of 1964 thru 1974, Dec 75, Jan and Aug 76, March 78 and October 79. Have several back issues (duplicates) for sale or trade. Don Howell, Box 66, Gardner, Kansas 66030.

WANTED: Winchester Model 70 .222 action or complete rifle. .22 caliber bullet swage dies, bullet jackets and lead wire. Condition and price first letter. Don Howell, Box 66, Gardner, Kansas 66030.

WANTED: Standard target stock for 52B standard barrel, FFL, M.O. or C.C. 3 day inspection. Dale L. Erlandson, Rm 108, 3550 Mormon Coulee Rd., LaCrosse, WI 54601, 608-785-9000. Days.

FOR SALE: Complete 30 Caliber bullet making set up. 3 Die bodies; 5 Swages; 2 Core dies; 3 seaters for both Flat Base and boattail (dies and bodies by Pindell), Massive custome press, lead cutter, jacket spinner, punches, other miscellaneous gadgets. P.O.R. 304-275-2620 after 6 p.m.

FOR SALE OR TRADE: Have Winchester 52C in heavy barrel excellent, with Parker Hale rear, Olympic front $425 or will trade for Win 52C in standard weight barrel. Have Remington 40X .22 RF in heavy barrel excellent, trade for 40X in standard weight barrel. Browning Superposed 12 gauge 26½ improved cylinder and modified, round knob, pad 14¼", swivels, very good plus $895. 1940 Remington 37 with original Remington rear, Olympic front, Canjar adjustable butt plate and palm rest on single shot adapter, 5 shot clip Canjar trigger excellent, $425 or trade for Rem 40X or Win 52C in standard weight barrel. Dale Erlandson, Rm 108, 3550 Mormon Coulee Rd., LaCrosse, WI 54601, 608-785-9000. Days.

FOR SALE: Bichler and Astles 25 cal bullet making dies. Used to make 1000 bullets only. Bought new in 1956. As new today. $550. Wire cutter made by Detsch. Less than one year old. As new. $55. Phone 313-939-9676. D. M. Buckbee, 8704 Forest Ct., Warren, MI 48093.

FOR SALE: Heavy bench rifle, Hart #4 action, Hart 2 ounce trigger, 222 Hart barrel, Hart stock. Rifle made by R.W. Hart and Son. Shot less than 300 rounds, $750.00. With 3200 Redfield 24X $875.00. May consider keeping barrel. Jerry Guilds, Lawrenceville, PA 16929. 717-827-2073 days. 717-827-2521 nights.

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